



ST. THOMAS UNIVERSITY

Global American Learning

CATALOG

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SECTION 1 - GENERAL INFORMATION

1.1 WHO WE ARE

St. Thomas University, Global American Learning, is a nonprofit organization promoted by American E-Learning Investments, Inc. (AEI), incorporated in Wyoming. Our founders have decades of experience in high-quality education initiatives, consistently earning approval and recognition from educational authorities across the countries in which they've operated.

Motivated by a deep sense of social responsibility, a coalition of nonprofit organizations has chosen to invest further in education. They believe that unequal access to knowledge, coupled with the rapid concentration of information among privileged groups, has widened the gap between societal progress and those left behind.

With full alignment to the objectives of the United Nations' 2030 Agenda, our work is guided by three principles emphasized by Nobel Prize-winning economists:

1. Combating poverty through educational and cultural innovation
2. Advancing competitiveness through technological innovation
3. Promoting productivity via collaboration and cooperation

STU is an independent institution dedicated to expanding knowledge and contributing meaningfully to social development. We envision progress through a bold, inclusive approach—one that empowers underrepresented communities and fosters a meritocratic, resource-conscious society.

Our university embraces cultural openness and intellectual diversity. We value the varied backgrounds of our students, faculty, and staff, believing that such diversity is essential to mutual understanding, social awareness, and global citizenship.

The values that guide all members of the STU community include **meritocracy, integrity, respect, openness, pluralism, and social responsibility**. We actively welcome differences in gender, ethnicity, religion, age, nationality, ability, socioeconomic status, and geographic origin in a spirit of mutual respect.

1.2 MISSION STATEMENT

St. Thomas University provides an international online degree platform aimed at delivering higher education to underserved and underrepresented communities. Our mission is rooted in advancing social and economic development through accessible, inclusive learning.

1.3 PURPOSES

At STU, we recognize the critical role education plays in addressing the widening gap between developed nations and emerging economies. Limited access to quality education drives inequality and leads to lifelong disadvantages. This reality often prevents individuals—especially children—from improving their life circumstances and breaking cycles of poverty.

By focusing our efforts where education remains inaccessible, STU aims to reduce one of the most persistent contributors to social and economic disparity. We're committed to reshaping the educational model to be more adaptive, inclusive, and responsive to global challenges.

As technology rapidly transforms learning environments, we see it as both a tremendous opportunity and a serious risk. For those equipped with the right skills, technology unlocks new pathways. For those without, it creates new barriers. Our goal is to bridge that divide.

1.4 VISION

In line with its mission and values, St. Thomas University has built its academic vision around the following priorities:

- Designing structured academic courses focused on emerging technologies
- Bridging the global skills gap in English language proficiency
- Recruiting faculty skilled in delivering knowledge through digital platforms
- Ensuring affordable and flexible access to education through online pathways
- Providing high-quality U.S. academic instruction, widely recognized for its excellence in developing informed and capable global citizens

Additionally, STU works toward social transformation by emphasizing educational access for underprivileged communities, building a more equitable, merit-based, and sustainability-minded society.



We aim to prepare graduates not only for meaningful careers but also to foster entrepreneurial thinking and innovation.

To sustain our mission, we actively manage university resources through thoughtful budgeting, donor engagement, and the development of private support networks.

1.5 INSTITUTIONAL APPROVALS

The University of North Carolina Board of Governors has authorized St. Thomas University to operate an administrative campus in North Carolina. STU is officially permitted to conduct advising, admissions, enrollment, and related postsecondary activities under UNC Policy Manual 400.4.1.3[R](X)(B)

1.6 FACILITIES AND LIBRARY

As a fully online institution, STU maintains its headquarters and project offices in North Carolina, along with a network of learning centers located in key international regions aligned with its mission.

These virtual learning centers coordinate academic activities within their regions and provide in-person spaces where students, faculty, and tutors can meet and collaborate.

Our facilities are tailored for digital learning. Classrooms are equipped with multimedia tools, wired systems, and interactive displays, offering a modern environment that supports our dynamic, online teaching approach.

While our library operates virtually and offers comprehensive digital resources with email-based support, we also maintain dedicated physical workspaces, computers, and staff for administrative and program-based research support. Regular reviews ensure our resources remain current and relevant to each academic program.

1.7 GLOBAL LEARNING CENTERS

STU operates learning partnerships and centers with distinguished institutions around the world, including:

- AANT – Design and Graphic Design Academy, Rome, Italy
- Luxury Academy, Milan, Italy
- Flight Academy, Perugia, Italy
- Fine Arts Academy “Isadora Duncan”, Sanremo, Italy
- European Interstudy Association (AIE), Chiasso, Switzerland
- eCampus Albania, Tirana, Albania
- eCampus University, Novedrate, Italy
- Quasar Institute for Advanced Design, Rome, Italy
- Uniopen Panepistimiou, Athens, Greece
- Università degli Studi Link, Rome, Italy
- Université “Denis Sassou-N’Guesso,” Kintélé, Republic of Congo

1.8 CONTACT INFORMATION

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SECTION 2 - ACADEMIC SYSTEM

2.1 THE AMERICAN SYSTEM

STU operates internationally and recognizes the importance of introducing non-U.S. faculty and students to the structure of the American higher education system.

In the United States, bachelor's degrees typically require four years of study, while master's degrees generally take two years to complete. The American system emphasizes academic exploration—especially during the first two undergraduate years—encouraging students to experiment across disciplines.

Academic requirements at U.S. institutions are typically divided into four categories:

- **General Education Requirements (GER):** Foundational courses in core liberal arts disciplines, such as history, literature, philosophy, mathematics, computer science, economics, political science, psychology, and religion. These courses are designed to broaden intellectual interests and foster critical skills.
- **Core Curriculum and Concentration Area:** Courses central to the chosen field of study, aligned with national standards in that discipline.
- **Concentration Electives:** Additional courses supporting the core courses.
- **General Electives:** Courses outside the concentration area that reflect personal interests or interdisciplinary curiosity.

Student classifications are based on completed credit hours:

- *Freshman:* Fewer than 30 credit hours
- *Sophomore:* 30–59 credit hours
- *Junior:* 60–89 credit hours
- *Senior:* 90 or more credit hours
- *Transfer Student:* Enrolled in a new university or program after prior postsecondary experience

2.2 ST. THOMAS UNIVERSITY SYSTEM

STU embraces the American model of distance learning with a mission to foster human connection—despite geographic boundaries—through digital education.

Our pedagogical model, **Innovative Didactics**, is built on:

- Multimedia tools and interactive materials
- Personalized learning paths
- System interoperability for seamless use
- Flexible access for diverse student needs
- Emphasis on collaboration and dialogue through guided tutor support and peer engagement

All educational activities are conducted within a **web-based Learning Management System (LMS)**. STU's approach ensures that students are never isolated; instead, they are integrated into a learning community, supported by tutors and peers.

Our system enables:

- Reduced reliance on physical infrastructure
- Elimination of travel-related barriers
- Accommodation of working professionals, remote learners, and students with disabilities
- Enhanced student participation, academic performance, and faculty engagement
- Improved administrative access and student support
- Real-time learning progress monitoring

Program oversight and management are provided by the following colleges, in collaboration with the Academic Senate and Curriculum Committee:

- College of Interdisciplinary Studies
- College of Health Sciences
- College of Innovation and Intelligence
- College of International Business

To support continuous improvement, STU has established a **Self-Evaluation Committee** responsible for ongoing academic assessment and institutional development.



2.3 ACADEMIC CALENDAR AND CLASS SCHEDULE

STU offers a **flexible, student-centered academic calendar** that begins with a student's first enrolled course and ends upon fulfillment of all program requirements.

Courses follow a modular format:

- Bachelor's courses: 5 weeks in duration
- Master's courses: 6 weeks in duration
- Students may begin a new course immediately after completing the previous one
- While students may enroll in up to two courses at a time, **single-course enrollment is recommended** to maximize focus and outcomes

Instructional time is based on student activity and learning outcomes, particularly in asynchronous formats. Class time does **not include holidays, breaks, or orientation periods**.

This intensive, focused model promotes deeper engagement with material, timely progression, and overall student success.

2.4 CREDIT HOUR ASSIGNMENT

Academic progress at STU is measured in **credit hours (CH)**:

- **Bachelor's degree:** Minimum of 120 credit hours
- **Master's degree:** Between 36–60 credit hours (depending on the program)

Each 3-credit course is structured in **5–6 units** consisting of:

- **Instructional content:** Video lectures, discussions, quizzes, readings, and interactive activities (33–48 total hours)
- **Study activities:** Independent reading, research, written assignments, and analysis (66–126 total hours)

Some programs require **internships**, which involve:

- Preparatory workshops and simulations
- Supervised, real-world practice
- Reflective sessions and instructor feedback each internship equate to **60 hours per 1 credit hour**.

The number of credits assigned to internships reflects the level of engagement required to achieve the program's intended learning outcomes and graduate with a professionally relevant skillset.

2.5 CURRICULA AND PLANS OF STUDY

Each student's academic plan includes required and optional learning activities tailored to the degree program.

Additional credits earned through elective courses or examinations may remain recorded on the student's transcript and potentially recognized in future academic evaluations. However, only grades from courses required for degree completion factor into the final **grade point average (GPA)**.

Course Numbering System:

- < 100: Preparatory (non-credit)
- 100–299: Lower-division undergraduate courses (introductory/sophomore level)
- 300–399: Upper-division undergraduate courses (junior/senior level)
- 400–499: Advanced undergraduate courses (senior capstone level)
- 500–900: Graduate-level courses

Each course includes a written syllabus outlining:

- Objectives
- Prerequisites
- Content and structure
- Grading and evaluation methods

Prerequisites must be satisfied before enrollment.

2.6 VIRTUAL LABORATORY

STU's **Virtual Laboratory** offers students the chance to apply theoretical knowledge through active, guided practice—following a “learning by doing” philosophy.



- Students complete exercises that are accompanied by **Interactive Classes**, where experienced faculty provide feedback, clarify doubts, and guide students step-by-step through tasks.
- **Discussion forums** allow for peer interaction and tutor support, encouraging collaborative problem-solving and real-time reflection.
- STU's **Teaching Cyberspace** includes simulations and interactive activities where learners can operationalize new concepts and reinforce theoretical principles through hands-on engagement.

This model fosters both independence and support, helping students consolidate knowledge and develop critical thinking through ongoing feedback.

2.7 ACADEMIC PLANNING

St. Thomas University offers a range of degree programs through its various colleges, including:

- **Four-year bachelor's programs** leading to the *Bachelor of Arts (B.A.)* and *Bachelor of Science (B.Sc.)*
- **Two-year master's programs** providing specialized, graduate-level training

While both B.A. and B.Sc. degrees carry similar academic weight, they differ in structure:

- The **B.A.** program balances coursework between concentration-specific classes and general education/elective requirements.
- The **B.Sc.** program provides greater depth in the concentration field, with fewer electives and a more focused curriculum.

All students are responsible for ensuring they meet the degree requirements of their chosen program.

At the graduate level, STU's **master's programs** focus on specialization and interdisciplinary thinking. Students are expected to develop advanced analytical skills and subject knowledge that can support continued academic pursuits or professional advancement.

The **Master's Thesis** is a defining element of the graduate experience. Students engage in faculty-led research, gaining hands-on experience in project design, academic inquiry, and critical evaluation. This experience also helps students determine their readiness for potential doctoral study or entry into the professional field.



SECTION 3 - STU COLLEGES

St. Thomas University offers bachelor's and master's degrees as well as certificate programs (credit and non-credit). Each college shapes the academic vision of the university and structures the design and delivery of its programs.

3.1 COLLEGE OF INTERDISCIPLINARY STUDIES

The College of Interdisciplinary Studies represents a bold rethinking of liberal education, built around innovation, global relevance, and academic breadth. The College serves as a dynamic foundation for general education, digital pedagogy, and the creative arts.

Strategic Goals of the College

- **Internationalization:** Build joint programs and faculty exchange pipelines with partners such as Accademia del Lusso, Accademia di Belle Arti, E-Campus University, and Link University
- **Curricular Innovation:** Merge classical liberal arts education with digital and creative skill-building for the 21st century
- **Equity & Inclusion:** Foster inclusive learning environments through culturally responsive pedagogy and psychosocial support
- **Workforce Readiness:** Prepare students for both intellectual and career advancement in a global economy

The College of Interdisciplinary Studies is composed of three interconnected academic units:

- The **School of Humanities**
- The **School of Digital Education**
- The **School of Fine Arts**

Together, they promote intellectual flexibility, cultural understanding, technological fluency, and creative expression. While distinct in focus, all three schools interconnected academic units share a commitment to interdisciplinary learning and real-world impact.

3.1.1 School of Humanities

Mission & Vision. The School of Humanities delivers foundational training in critical thinking, communication, ethics, and cultural awareness. Rooted in timeless humanistic disciplines and responsive to today's global context, the School provides a broad education that supports civic engagement, personal growth, and lifelong learning.

It houses STU's **core curriculum** and will offer degrees or concentrations in fields such as literature, philosophy, communication, and global studies.

Sample Courses (In Development):

- Critical Thinking & Argumentation
- Cultural Diplomacy
- Global Ethical Traditions
- History of Ideas
- Intercultural Communication
- Introduction to the Humanities
- Philosophy and Social Justice
- Public Speaking for Digital Audiences
- Religion and Modernity
- Rhetoric and Writing in the 21st Century
- World Literature and Society

Programs Offered:

- Certificate in Beginning English
- Certificate in Advanced English
- Certificate in Academic English Proficiency (*)

3.1.2 School of Digital Education

Mission & Vision. The School of Digital Education is committed to reshaping the future of teaching and learning by developing world-class expertise in instructional design and psychosocial support. With a global outlook, the School trains educators, trainers, and learners for effectiveness in online, cross-cultural, and remote educational environments.



Sample Courses (In Development):

- Principles of Instructional Design
- Online Learning Theories and Practices
- Designing Inclusive Digital Classrooms
- Educational Technology and Tools
- Digital Assessment and Learning Analytics
- Emotional Intelligence in Education
- Virtual Learning Communities
- Leadership in e-Learning Environments
- Trauma-Informed Teaching Strategies
- Communication in Asynchronous Contexts

Programs Offered:

- *Bachelor of Science in Digital Education*
 - Concentration in Instructional Design for Digital Contexts
 - Concentration in Psychosocial Education in Digital Settings
- *Master of Arts in Digital Education*
 - Concentration in Instructional Design
 - Concentration in Psychosocial Education
- *Certificate in Primary and Secondary Online Teaching*

3.1.3 School of Fine Arts

Mission & Vision. Drawing from Italy's artistic heritage and developed in collaboration with Europe's top design institutions, the School of Fine Arts blends creative tradition with contemporary relevance. The School views artistic expression not only as personal fulfillment but as a tool for cultural impact and social transformation.

Sample Courses (In Development):

- Introduction to Fashion Design
- Fashion Styling and Communication
- Global Aesthetics and Cultural Trends
- Sustainable Practices in the Creative Industries
- History of Contemporary Art and Design
- Interior Design for Fashion Environments
- Video Production for Creative Industries
- Portfolio and Branding for Artists
- Innovation and Entrepreneurship in the Arts
- Digital Tools for Visual Communication

Programs Offered:

- *Bachelor of Arts in Fashion Styling and Communication*
- *Bachelor of Arts in Fashion Design*
- *Bachelor of Arts in Fashion Brand Management*
- *Master of Arts in Fashion Brand Management*
- *Master of Arts in Fashion Communication Management*
- *Master of Arts in Fashion Art Direction*
- *Specialized Certificate Programs in Fashion and Luxury Professions*

3.2 COLLEGE OF INNOVATION AND INTELLIGENCE

The College of Innovation and Intelligence is an interdisciplinary hub for emerging technologies and applied computing. Academic disciplines housed within the College include:

- Computer and Data Science
- Mathematics for Artificial Intelligence
- Computational Life Sciences and Bioinformatics
- Software Engineering
- Architecture
- Web and Information Systems
- Intelligent Sensing (Robotics, Real-Time Systems, Computer Vision)
- Artificial Intelligence Systems



Curricula are designed to prepare students to lead in a dynamic, tech-driven knowledge society. Emphasis is placed on collaboration across disciplines—bridging the fields of computer science, design, anthropology, psychology, and beyond.

Programs are tailored to industry demand, equipping students with both foundational and specialized expertise in high-growth fields.

Programs Offered:

- *Bachelor of Science in Computer Science* with concentrations in:
 - E-Commerce and Digital Communication
 - Machine Learning and Artificial Intelligence
 - Information and Data Analytics
 - Networks and Cybersecurity
- *Master of Science in Artificial Intelligence Systems* with concentrations in:
 - Computer Vision
 - Methodologies
 - Intelligent Robots
- *Master of Science in Cybersecurity*
- *Certificate in Cybersecurity Foundations*

3.3 COLLEGE OF INTERNATIONAL BUSINESS

The College of International Business promotes excellence in global economics, business strategy, and quantitative analysis. Its mission includes:

- Advancing both theoretical and applied research in economic and international disciplines
- Encouraging interdisciplinary approaches and critical thinking across business contexts
- Strengthening alignment between academic offerings and the needs of global industry

The College fosters integration between teaching and research, promoting knowledge sharing at regional, national, and international levels. Through engagement with industry stakeholders, its programs reflect real-world insight and future-facing relevance.

Programs Offered:

- *Bachelor of Science in Business Administration* with concentrations in:
 - Management
 - Marketing
 - International Business
- *Master of Business Administration (MBA)* with concentrations in:
 - Green Management, Energy, and Corporate Social Responsibility
 - Marketing and Digital Communication
- *Certificate in Introduction to International Business*
- *Certificate in Fundamentals of Organizational Leadership*

3.4 COLLEGE OF HEALTH SCIENCES

The College of Health Sciences oversees three Schools:

Nursing

Nutrition and Dietetics

Health Administration and Public Health

with a shared emphasis on **global health**, **professional excellence**, and **interdisciplinary care**. Its programs are aligned with international standards and professional best practices.

3.4.1 School of Nursing

With a focus on preparing nurses for global leadership, the School of Nursing emphasizes hands-on clinical preparation, advanced technology, and evidence-based care.

Students learn to navigate the evolving demands of healthcare with a firm grounding in human-centered, ethical practice.

Programs Offered:

- *Bachelor of Science in Nursing*



- *Master of Science in Nursing*
- *Master of Science in Public Health Nursing*

3.4.2 School of Nutrition and Dietetics

This School addresses 21st-century challenges such as food sustainability, nutrition security, and public health advocacy. Its mission is to graduate well-prepared, forward-thinking professionals who can contribute meaningfully to nutrition science and wellness promotion in communities around the globe.

Programs Offered:

- *Bachelor of Science in Nutrition and Dietetics*
- *Master of Science in Human Nutrition*
- *Certificate in Sports Nutrition*

3.4.3 School of Health Administration and Public Health

The School prepares emerging leaders in healthcare systems management, public health policy, and organizational innovation. Through accelerated programs that combine theory and field experience, students develop competencies to drive efficiency, equity, and innovation in health services worldwide.

The School embraces a bold vision: *health and justice for all*. Students are encouraged to think globally, act ethically, and shape systems that reflect the universal right to health.

Programs Offered:

- Certificates in Healthcare Administration, Leadership, and Management
- Certificates in Healthcare Risk Management
- Certificates in Clinical Research Management
- Certificates in Emergency Medicine / Emergency Room Management

3.4.4 Laboratory Activities

In addition to coursework, students at St. Thomas University have the opportunity to participate in internships at accredited healthcare institutions worldwide. These immersive experiences complement academic study with practical, hands-on learning in real-world environments.

3.4.4.1 Simulation in Health Care Training

Consistent with its mission, STU integrates **simulation-based learning** into its health sciences curricula—adopting both low- and medium-fidelity simulation methods proven to be effective even in resource-limited settings.

The World Health Organization (WHO), in its publication *Transforming and Scaling Up the Education and Training of Health Professionals* (2013), emphasizes the importance of simulation-based education. Recommendation 5 advises the use of: > “High-fidelity simulation methods in adequately resourced settings and low-fidelity methods in low-resource settings.”

At STU, simulation precedes all clinical practice to uphold the **highest standards of ethical care** and **patient dignity**. Simulation allows students to:

- Build confidence and competence in a safe, controlled environment
- Practice technical procedures and interpersonal communication
- Make mistakes without clinical consequences, and learn from them
- Reflect on experiences and develop habits of critical analysis

This active learning strategy reinforces not only academic understanding but also professional responsibility, ensuring that students graduate as capable and conscientious healthcare providers.



SECTION 4 - STU BACHELOR'S DEGREES

4.1 MINIMUM ADMISSION REQUIREMENTS

To be admitted into an STU undergraduate program, applicants must meet the following criteria:

1. Educational Background:

- A high school diploma or equivalent
- If the credential was earned outside the U.S., the applicant must provide proof of secondary school completion that qualifies for university admission in their home country.

2. English Language Proficiency:

- Applicants whose native language is not English must demonstrate sufficient English language proficiency.

4.2 GENERAL DEGREE COMPLETION REQUIREMENTS

To be awarded a **Bachelor's Degree**, students must:

1. Earn a minimum of 120 credit hours, divided as follows:

- General Education Requirements (GER): 30 credit hours
- Core Curriculum, Concentration Requirements, and General Electives: 90 credit hours
- Of the total 120 credit hours, **at least 45** must be **upper-division credits** (course numbers 300–400)

2. Complete at least 30% of their coursework at St. Thomas University

3. Fulfill all concentration and core curriculum requirements for their chosen program

4. Maintain a minimum cumulative GPA of 2.0 on a 4.0 scale

4.2.1 General Education Requirements

Students must complete at least **30 credit hours** in General Education, covering foundational areas essential to a well-rounded liberal arts education.

Emphasis is placed on building skills in **written and oral communication**, and course selection must include the following categories:

- **Humanities and Fine Arts**
- **Business, Social, and Behavioral Sciences**
- **Mathematics, Natural Sciences, and Computer Science**
- **Global Perspectives and Diversity** – Courses focus on international topics and issues of race, ethnicity, and gender (*designated as G in the catalog*)
- **Writing Intensive** – Courses that emphasize writing across disciplines (*designated as W in the catalog*)

Note: Each course may satisfy only one General Education Requirement. Eligible courses are marked **GER** in the Course Code and Descriptions section.

4.2.2 Core Curriculum and Concentration Requirements

Each degree program includes a **core curriculum** and a set of **concentration-specific courses** designed to build depth and expertise in the chosen field of study. These requirements vary by program and are outlined in the respective degree descriptions.

4.2.3 General Electives

In addition to core and concentration courses, students are required to complete **general electives**. These electives support interdisciplinary learning and allow students to explore complementary interests or career-enhancing skills.



4.3 BACHELOR OF ARTS IN FASHION STYLING & COMMUNICATION

The B.A. in Fashion Styling & Communication at St. Thomas University prepares students to become dynamic storytellers and brand strategists in the global fashion industry. Rooted in visual culture and media fluency, the program equips students with the creative, technical, and critical thinking skills needed to craft compelling fashion narratives across digital, print, and live platforms.

From fashion shows and editorial shoots to social media campaigns and brand activations, students learn to develop and manage a brand's visual identity. Through hands-on workshops, collaborations with industry professionals, and real-world projects, students gain a robust foundation in styling, content creation, and strategic communication.

4.3.1 Educational Objectives and Methodology

Graduates will be prepared with a powerful combination of artistic creativity, technical skills, and strategic thinking. Key competencies include:

- **Styling & Visual Communication:** Crafting looks and narratives that align with a brand's aesthetic across fashion shows, editorials, and campaigns.
- **Digital & Multimedia Content Creation:** Creating impactful visual content for web, social media, and e-commerce using photography, video, and editing tools.
- **Strategic Brand Messaging:** Understanding how to translate brand values into compelling communication strategies.
- **Fashion Industry Literacy:** Navigating the fast-changing landscape of global fashion trends, consumer behavior, and media channels.
- **Collaborative & Interdisciplinary Practice:** Working within creative teams, including makeup artists, photographers, graphic designers, and producers.
- **Critical Thinking & Creative Problem Solving:** Responding to challenges with innovative, context-sensitive solutions.

Methodology: The curriculum blends theory with intensive practice, emphasizing portfolio development, industry case studies, and project-based learning in studio environments.

4.3.2 Career Opportunities

Graduates of this program are prepared to take on high-impact creative and managerial roles, including:

- Fashion Stylist or Editor
- Communication or PR Manager
- Fashion Show Director
- Visual Merchandiser
- Image Consultant or Personal Shopper
- Brand Content Creator
- Creative Producer
- Trend Forecaster

They will be equipped to work across fashion houses, media platforms, design studios, advertising agencies, and independent ventures.

4.3.3 Curricular Program

A. General Education Requirements (30 CH)

Students complete foundational courses that build communication, global awareness, and critical reasoning:

- COM 105 - Introduction to Computer Science
- ENG 110 - English Composition III (W)
- ENG 320 - Digital Linguistics and Technical Writing (W)
- ENG 390 - Public Speaking
- LAW 100 - International Law
- One course in English Literature
- One course in Mathematics
- One course in Natural Science
- POL 200 - Global Poverty and International Responsibility (G)
- SOC 300 - Sociology of Media and Communication



B. Core Courses (69 CH)

Courses build expertise in fashion communication, styling, visual design, and branding:

- ARH 210 - History of Fashion and Design I
- ARH 310 - History of Fashion and Design II
- ARH 350 - Latest Trends in Visual Arts
- ARH 360 - History of Cinema and Video - 2 CH
- BUS 275 - Fashion Marketing
- BUS 430 - Business Logic and Organization - 2 CH
- COM 200 - Introduction to Graphic Design
- COM 400 - Video Production
- COM 440 - Elements of Editorial Design
- FAS 210 - Material Technology - 2 CH
- FAS 230 - Fashion Design Methodology I
- FAS 240 - Styling Applied to Design I
- FAS 310 - Photography
- FAS 330 - Fashion Design Methodology II
- FAS 340 - Styling Applied to Design II
- FAS 350 - Textile Culture and Experimentation - 2 CH
- FAS 430 - Fashion Design Methodology III
- FAS 440 - Styling Applied to Design III
- LAW 340 - Elements of Copyright - 2 CH
- PSY 420 - Media Phenomenology
- SOC 210 - Fashion Product Communication
- SOC 230 - Elements of Journalistic Communication I
- SOC 330 - Elements of Journalistic Communication II
- SOC 340 - Psychology and Sociology of Color Applied to Design - 2 CH
- SOC 450 - Multimedia Communication

C. Elective Courses (18 CH)

Students select from a curated list of culture and language courses to enhance global literacy:

- ARH 200 - History of Modern Art or History of Art I - 2 CH
- ARH 205 - History of Contemporary Art or History of Art II - 2 CH
- FRE 100 - French Language I
- FRE 200 - French Language II
- FRE 300 - French Language III
- ITA 100 - Italian Language I
- ITA 200 - Italian Language II
- ITA 300 - Italian Languages III
- ITA 320 - Contemporary Italian Culture (W)
- ITA 350 - Italian Culture and Eno-gastronomy
- ITA 410 - The Discovery of Italy in British Romantic Literature
- LIT 370 - U.S. Intellectual History, A Survey

D. Capstone Requirement (3 CH)

- FAS 495 - Senior Project: A culminating creative portfolio showcasing a student's conceptual, stylistic, and strategic capabilities.



4.4 BACHELOR OF ARTS IN FASHION DESIGN

The B.A. in Fashion Design at St. Thomas University provides students with the comprehensive artistic and technical training needed to succeed as forward-thinking fashion designers. The program cultivates a deep understanding of the fashion system, enabling students to transform creative vision into innovative collections. Through a progressive curriculum and immersive studio practice, students explore the full design process—from conceptual research and sketching to garment construction and digital prototyping.

This degree emphasizes not only aesthetics and design innovation but also market awareness, production dynamics, and responsible fashion practices, preparing graduates to design with intention and impact.

4.4.1 Educational Objectives and Methodology

The program's goal is to develop designers who are creative thinkers, skilled makers, and culturally literate professionals. Key learning outcomes include:

- **Creative Research & Trend Forecasting:** Using cultural, historical, and market research to generate relevant and visionary design concepts.
- **Collection Design:** Planning full fashion collections from concept to final garment, including materials, silhouettes, and construction techniques.
- **Patternmaking & Garment Construction:** Mastery of traditional and digital pattern-cutting, tailoring, and prototype creation.
- **Digital Design Technologies:** Application of CAD tools, 3D modeling, and rendering design, communicate, and present collections.
- **Sustainable & Ethical Practices:** Understanding the environmental and social implications of materials, production, and design decisions.
- **Professional Presentation & Portfolio Development:** Articulating design vision through compelling visual storytelling, public presentations, and industry-standard portfolios.

Methodology: The degree offers a dynamic mix of classroom theory, studio work, and collaborative workshops with ongoing critiques to simulate industry feedback cycles.

4.4.2 Career Opportunities

Graduates will be well-equipped for positions throughout the fashion industry, including:

- Fashion Designer
- Assistant Designer
- Fashion Illustrator or Graphic Designer
- CAD Technician
- Patternmaker or Tailoring Technician
- Product Developer
- Trend Forecaster
- Quality Control or Production Manager
- Fashion Consultant

They may work in design studios, fashion houses, global retailers, or pursue independent creative careers.

4.4.3 Curricular Program

Students must meet the following degree requirements:

A. General Education Requirements (30 CH)

Courses are designed to enhance written and verbal communication, digital literacy, global awareness, and analytical thinking:

- COM 105 - Introduction to Computer Science
- ENG 110 - English Composition III (W)
- ENG 320 - Digital Linguistics and Technical Writing (W)
- ENG 390 - Public Speaking
- LAW 100 - International Law
- One course in English Literature
- One course in Mathematics
- One course in Natural Science
- POL 200 - Global Poverty and International Responsibility (G)
- SOC 300 - Sociology of Media and Communication



B. Core Courses (75 CH)

The heart of the program includes intensive design training, practical studio work, and technical development:

- ARH 210 - History of Fashion and Design I
- ARH 310 - History of Fashion and Design II
- BUS 275 - Fashion Marketing
- BUS 285 - Fashion Brand Management
- BUS 430 - Business Logic and Organization - 2 CH
- COM 200 - Introduction to Graphic Design
- COM 333 - CAD Patternmaking
- COM 415 - 3D Multimedia Design
- FAS 210 - Material Technology - 2 CH
- FAS 235 - Fashion Design I - 6 CH
- FAS 245 - Illustration Techniques I
- FAS 255 - Patternmaking and Prototyping I
- FAS 335 - Fashion Design II - 6 CH
- FAS 345 - Illustration Techniques II
- FAS 350 - Textile Culture and Experimentation - 2 CH
- FAS 355 - Patternmaking and Prototyping II
- FAS 360 - Accessories Design
- FAS 365 - Textile Design - 2 CH
- FAS 435 - Fashion Design III - 6 CH
- FAS 450 - Product Development
- FAS 455 - Patternmaking and Prototyping III
- FAS 460 - Eco Fashion and Innovative Techniques for Fashion
- LAW 340 - Elements of Copyright - 2 CH
- SOC 340 - Psychology and Sociology of Color Applied to Design - 2 CH

C. Elective Courses (12 CH)

Language, art history, and cultural electives to support global perspectives:

- ARH 200 - History of Modern Art *or* History of Art I - 2 CH
- ARH 205 - History of Contemporary Art *or* History of Art II - 2 CH
- FRE 100 - French Language I
- FRE 200 - French Language II
- FRE 300 - French Language III
- ITA 100 - Italian Language I
- ITA 200 - Italian Language II
- ITA 300 - Italian Languages III
- ITA 320 - Contemporary Italian Culture (W)
- ITA 350 - Italian Culture and Eno-gastronomy
- ITA 410 - The Discovery of Italy in British Romantic Literature
- LIT 370 - U.S. Intellectual History, A Survey

D. Capstone Requirement (3 CH)

FAS 495 - Senior Project: A final collection or design portfolio showcasing conceptual rigor, craftsmanship, and creative identity.



4.5 BACHELOR OF ARTS IN FASHION BRAND MANAGEMENT

The B.A. in Fashion Brand Management at St. Thomas University offers a deep dive into the business of fashion, combining creativity, strategic thinking, and marketing innovation. In today's competitive landscape, fashion brands do more than sell clothing—they craft identities, experiences, and lifestyles. This program prepares students to lead in this dynamic environment by training them to build, manage, and grow successful fashion brands that resonate with diverse audiences.

Students gain fluency in fashion economics, digital communication, retail positioning, and sustainable brand development. Through case studies, simulations, and real-world projects, graduates leave equipped to translate market insights into compelling brand strategies.

4.5.1 Educational Objectives and Methodology

The program focuses on developing professionals with a 360-degree vision of brand management. Students acquire key capabilities in:

- **Market & Consumer Insight:** Conduct qualitative and quantitative research to identify fashion trends, consumer needs, and opportunities.
- **Strategic Brand Development:** Manage a brand from concept to launch, ensuring consistent messaging and value throughout.
- **Digital Marketing & Communication:** Use social media, influencer strategy, content creation, and analytics to enhance digital presence and engagement.
- **Retail & E-commerce Management:** Understand store operations, omni-channel strategies, and customer experience optimization.
- **Financial & Business Literacy:** Learn how to manage budgets, pricing strategies, and profitability within the fashion business.
- **Leadership & Collaboration:** Build practical skills for managing teams, leading projects, and communicating effectively within multidisciplinary environments.

Methodology: A blend of theory and applied learning through brand case studies, interactive seminars, collaborative workshops, and brand launch simulations.

4.5.2 Career Opportunities

Graduates will be ready for fast-paced roles in branding, marketing, and fashion business, such as:

- Brand Manager
- Marketing Manager
- Product Manager
- Sales or Retail Manager
- Fashion Buyer
- E-Commerce Manager
- Event or PR Manager
- Co-Branding Specialist
- Trend Analyst

Employment opportunities span fashion houses, luxury brands, global retailers, start-ups, and digital platforms.

4.5.3 Curricular Program

A. General Education Requirements (30 CH)

Designed to build essential foundational competencies in communication, critical thinking, and social awareness:

- COM 105 - Introduction to Computer Science
- ENG 110 - English Composition III (W)
- ENG 320 - Digital Linguistics and Technical Writing (W)
- ENG 390 - Public Speaking
- LAW 100 - International Law
- One course in English Literature
- One course in Mathematics
- One course in Natural Science
- POL 200 - Global Poverty and International Responsibility (G)



- SOC 300 - Sociology of Media and Communication

A. Core Courses (75 CH)

Professional coursework focused on fashion markets, branding strategies, and digital engagement:

- ARH 210 - History of Fashion and Design I
- ARH 310 - History of Fashion and Design II
- ARH 350 - Latest Trends in Visual Art
- BUS 287 - Fashion Brand Management I
- BUS 295 - Advertising, Communication, and Cultural Marketing
- BUS 315 - Communication of Fashion Products I
- BUS 355 - Communication and Inside Marketing
- BUS 365 - Communication of Fashion Products II
- BUS 375 - Fashion Digital Marketing
- BUS 387 - Fashion Brand Management II
- BUS 395 - Fashion Markets and Business Positioning
- BUS 407 - Fashion Start-Up Management
- BUS 487 - Fashion Brand Management III
- COM 217 - Computer Graphics for Fashion I
- COM 317 - Computer Graphics for Fashion II
- COM 363 - Digital Technologies Applied to Online Sales
- COM 417 - Computer Graphics for Fashion III
- ECO 250 - Fundamentals of Financial Economics
- FAS 220 - Brand Design
- FAS 370 - Eco-Fashion and Innovative Techniques for Fashion
- FAS 400 - Textile Culture and Color
- FAS 470 - Packaging Design
- LAW 345 - Law and Licensing for Digital Communication
- SOC 360 - Media Phenomenology
- SOC 380 - Phenomenology of Contemporary Arts

B. Elective Courses (12 CH)

A global and cultural perspective through interdisciplinary options:

- ARH 200 - History of Modern Art or History of Art I - 2 CH
- ARH 205 - History of Contemporary Art or History of Art II - 2 CH
- FRE 100 - French Language I
- FRE 200 - French Language II
- FRE 300 - French Language III
- ITA 100 - Italian Language I
- ITA 200 - Italian Language II
- ITA 300 - Italian Languages III
- ITA 320 - Contemporary Italian Culture (W)
- ITA 350 - Italian Culture and Eno-gastronomy
- ITA 410 - The Discovery of Italy in British Romantic Literature
- LIT 370 - U.S. Intellectual History, A Survey

C. Capstone Requirement (3 CH)

- FAS 495 - Senior Project: A final applied brand strategy or experiential campaign designed by the student to showcase branding mastery.



4.6 BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

St. Thomas University's Business Administration degree is designed to develop the skills necessary to enter and make an impact in the business world. Special attention will be paid to the economic impact of environmental issues and sustainable development as drivers of policy and growth in the 21st century. In addition to the standard business courses, the St. Thomas University Bachelor of Business Administration degree includes lessons designed to develop systemic thinking and environmental awareness.

Students will establish a foundation of sustainable knowledge in the business environment. To achieve this goal, the degree offers additional courses from other academic disciplines, promoting interdisciplinary thinking and problem-solving skills. Specific attention is paid to developing students' analytical skills. The aim is to identify business problems and find innovative solutions.

The curriculum is designed to foster interaction between advanced theories and industry practices. After essential preparation, the student must choose a subject area for further study:

4.6.1 Concentration in Management

Management's heart is understanding planning, organizing, leading, and controlling organizational processes. Today's business environment requires managers who can effectively assess situations, develop plans, and guide organizations through them. This degree program requires courses in financial decision-making, managerial accounting, organizational behavior, and servant leadership. Graduates with this concentration will be prepared for mid- and upper-level management positions, including department heads, directors, operations managers, and general managers.

4.6.2 Concentration in Marketing

Marketing emphasizes branding and promoting products and services to the public, targeted at specific demographics. Marketing touches many areas, so students will be well-versed in advertising, communications, consumer behavior, public relations, marketing strategy, retail business law, management, economics, finance, computer science, mathematics, and statistics.

4.6.3 Concentration in International Business

International business is an interdisciplinary program that combines courses in economics, business, international law, foreign languages, and other areas to ensure that students are adequately prepared for positions in global companies, banks, government agencies, and other organizations.

4.6.4 Educational Objectives and Methodology

The program aims to develop a multidisciplinary, international, multi-comprehensive, and comparative business and management curriculum. Students' experiences are enriched by exposure to the cultural, historical, social, and linguistic aspects of critical factors for professional success, fostered by the international community at St. Thomas University. Future managers and business leaders will be expected to understand the economies, societies, and cultures of the geographical areas currently regarded as significant players in the world, particularly in terms of economic, cultural, and social opportunities, such as North America, Asia, and Europe.

4.6.5 Career Opportunities

St. Thomas University's Business Administration graduates will have developed the tools and experience needed to succeed as entrepreneurs and managers. The managerial skills acquired in this program can be applied to various companies.

4.6.6 Curricular Program

Students must satisfy the following degree requirements:

A. General Education Requirements (30 CH)

- COM 105 – Introduction to Computer Science
- ENG 110 – English Composition III (W)
- ENG 210 – English for Business Studies (W)
- ENG 390 – Public Speaking
- LAW 100 – International Law
- One English Literature course
- One Mathematics course



- One Natural Science course
- POL 200 – Global Poverty and International Responsibility (G)
- SOC 300 – Sociology of Media and Communication

B. Core Curriculum (42 CH)

- BUS 110 – Introduction to Business
- BUS 140 – Introduction to Accounting
- BUS 220 – Principles of Sustainable Management
- BUS 230 – Green Business Strategy
- BUS 240 – Human Resources Management
- BUS 270 – Principles of Marketing
- BUS 350 – Business Strategies
- BUS 460 – Operations Management
- BUS 470 – Global Risk Management
- ECO 150 – Microeconomics
- ECO 160 – Macroeconomics
- LAW 200 – Business Law and Ethics
- MAT 150 – Probability & Statistics
- MAT 240 – Financial Mathematics

C. Concentration Requirements (18 CH) Students must select one of the following concentration areas:

Management

- BUS 420 - Knowledge and Information Management
- BUS 425 - Production Innovation and Technology Management
- BUS 435 - Strategic Business Management in an International Context
- BUS 450 - Management and Entrepreneurship
- BUS 455 - Leadership and Organizational Behavior
- BUS 465 - Supply Chain Management

Marketing

- BUS 290 - Promotion and Advertising
- BUS 310 - Consumer Behavior
- BUS 320 - Marketing Research Methods
- BUS 340 - E-Business in the Digital Age
- BUS 370 - Services Marketing
- BUS 440 - Corporate Strategies for Environmental and Social Responsibility

International Business

- BUS 360 - International Business and Global Economics
- BUS 435 - Strategic Business Management in an International Context
- BUS 445 - Financial Markets and Institutions
- BUS 475 - Cross-cultural Human Resources Management
- BUS 485 - International Marketing Organization
- ECO 370 - International Finance

D. General Electives (24 CH) selected in 300- and 400-level courses

E. Capstone Requirement (6 CH)

BUS 495 - Senior Project



4.7 BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Businesses, service organizations, and public administration have increasingly considered computer science skills necessary. The constant rapid evolution has created a need for computer specialists to enter the workforce. The Bachelor of Science Degree in Computer Science provides a foundational methodological background and an understanding of the latest technologies in various specialties, ranging from business to public service and individual applications.

The student must choose a subject area for further study

4.7.1 Concentration in E-Commerce and Digital Communication

The concentration courses in E-Commerce and Digital Communication focus on user-oriented design of digital applications. Students learn various stages of digital application design and their contexts, from identifying users' needs, creating application prototypes, assessing usability, generating promotional materials through digital channels, analyzing effectiveness, and maintaining customer relations. E-Commerce and Digital Communication program students will be well-prepared for various careers in the rapidly growing online business and communication field. They may pursue roles as e-commerce managers, digital marketing specialists, web developers, data analysts, social media managers, or other related positions.

4.7.2 Concentration in Machine Learning and Artificial Intelligence

The Machine Learning and Artificial Intelligence program covers various topics, including machine learning, deep learning, natural language processing, and Computer vision. It combines rigorous computer science skills with machine learning (ML) and artificial intelligence (AI), while providing the necessary mathematics, Statistics, and data science skills. The demand for professionals with expertise in machine learning and artificial intelligence is increasing, as these skills are in high demand across many industries. Graduates will be prepared for various careers, including those in machine learning engineering, data science, artificial intelligence, computer vision, and natural language processing.

4.7.3 Concentration in Information and Data Analytics

The Information and Data Analytics program offers a solid foundation for a range of exciting careers in the rapidly growing field of data analytics. It covers multiple topics, including data analysis, data mining, statistical modeling, data visualization, and programming languages like Python and R. The program is designed to equip students with the knowledge and skills necessary to work with large datasets and extract meaningful insights. Graduates will be well-prepared for various careers, including data analysts, data scientists, business intelligence analysts, and data engineers.

4.7.4 Concentration in Networks and Cybersecurity

The Network and Cybersecurity program equips students with the skills and knowledge required to work in the rapidly growing field of cybersecurity. The program encompasses a wide range of topics, including network security, cryptography, ethical hacking, incident response, and risk management. Graduates of the program will have the skills and knowledge necessary to secure computer networks from unauthorized access, identify vulnerabilities in computer systems and networks, and respond to security incidents. Some possible career paths include cybersecurity analyst, information security manager, penetration tester, and incident response specialist. Graduates will have the skills and knowledge to make a positive impact in the organizations they work for.

4.7.5 Educational Objectives and Methodology

The objective of the degree program is to equip graduates with the skills necessary for both rapid entry into the workforce in the field of information and communication technologies and to enable them to keep pace with the rapid technological evolution and adapt to a wide variety of work realities. Graduates in Computer Science will be able to apply the knowledge and skills acquired in the design, development, and management of computer systems; they will possess the skills necessary to address and analyze problems in application contexts and develop troubleshooting solutions.

4.7.6 Career Opportunities

The Bachelor of Science in Computer Science provides a broad-based knowledge foundation, complemented by elements of professional training, enabling students to continue their studies in higher education while also providing a pathway into the workforce. Graduates in Computer Science will conduct professional activities in designing, organizing, and managing computer systems in companies producing hardware, software in computer systems and networks, and information technology-based companies, e.g., banks, insurance companies, and



public bodies. Additionally, skills acquired during the degree program enable the initiation of self-employed professional activities. The Bachelor of Science in Computer Science prepares for the following professions: Software Analysts and Designers, System Analysts, Web Application Analysts and Designers, Network and Computer Communications Specialists, Database Analysts and Designers, Systems Administrators, Programming Technicians, Application Technicians, Web Technicians, Database Management Technicians, Network Systems Management Technicians.

4.7.7 Curricular Programs

Students must complete these curriculum requirements:

A. General Education Requirements (30 CH)

- COM 105 - Introduction to Computer Science
- ENG 110 - English Composition III (W)
- ENG 320 - Digital Linguistic and Technical Writing (W)
- ENG 390 - Public Speaking
- LAW 100 - International Law
- MAT 190 - Matrix Calculus and Operational Research
- One course in Literature
- PHY 200 - Physics
- POL 200 - Global Poverty and International Responsibility (G)
- SOC 300 - Sociology of Media and Communication

B. Core Curriculum (36 CH)

- COM 110 - Introduction to Artificial Intelligence and Machine Learning
- COM 120 - Introduction to Web Design
- COM 140 - Programming I
- COM 150 - New Media
- COM 180 - Data Analytics for Economics and Business
- COM 190 - Computer Network and Cloud Computing
- COM 250 - Introduction to Digital Imaging and Visualization
- COM 270 - Management Information System
- COM 290 - Operating Systems
- COM 300 - Database and Data Management
- COM 330 - Architecture of Computers
- COM 390 - Human-Computer Interaction

C. Concentration Requirements (30 CH) - Students must select one of the following concentration areas:

E-Commerce and Digital Communication

- COM 210 - E-commerce Strategies and Models
- COM 220 - Programming II
- COM 240 - Digital Marketing
- COM 241 - Social Media and Networking
- COM 242 - Mobile Application Development
- COM 243 - Electronic Payment Systems
- COM 305 - Web Analytics
- COM 315 - Digital Content Management
- COM 325 - Information Visualization
- COM 335 - Customer Relationship Management

Machine Learning and Artificial Intelligence

- COM 170 - Artificial Intelligence and Machine Learning Applied to Business
- COM 220 - Programming II
- COM 251 - Natural Language Processing
- COM 252 - Computer Vision
- COM 253 - Robotics and Automation
- COM 280 - Data Mining and Knowledge Discovery
- COM 345 - Reinforcement Learning
- COM 350 - Explainable Artificial Intelligence
- COM 410 - Learning Analytics



- COM 460 - Neural Networks and Deep Learning

Information and Data Analytics

- COM 220 - Programming II
- COM 281 - Data Management and Warehousing
- COM 282 - Business Intelligence
- COM 283 - Predictive Analytics
- COM 284 - Data Visualization
- COM 285 - Statistical Methods for Data Science
- COM 370 - Data Ethics and Privacy
- COM 375 - Text Analytics
- COM 380 - Time Series Analysis
- COM 385 - Multivariate Analysis

Network and Cybersecurity

- COM 220 - Programming II
- COM 291 - Cybersecurity Fundamentals
- COM 292 - Digital Forensics
- COM 293 - Intrusion Detection and Prevention
- COM 294 - Penetration Testing and Ethical Hacking
- COM 296 - Security Management and Risk Assessment
- COM 355 - Cryptography and Network Security
- COM 365 - Advanced Network Security
- COM 450 - Network Protocols and Architecture
- COM 470 - Computer Network Security

D. Concentration Electives: (21 CH). Students will choose seven courses in this area sufficient to complete a combined total of 120 credits:

- COM 320 - Programming III
- COM 340 - Development of Software Applications
- COM 360 - Frequency and Spectral Allocation: Wireless Systems
- COM 401 - Information Technology in Healthcare
- COM 402 - IT Service Management
- COM 403 - Geographic Information Systems
- COM 404 - Virtual Reality and Augmented Reality
- COM 405 - Emerging Technologies
- COM 406 - Knowledge Management
- COM 407 - Information Technology Auditing and Assurance
- COM 420 - Formal Methods in Computer Science

E. Capstone Requirement (3 CH)

COM 495 - Senior Project



4.8 BACHELOR OF SCIENCE IN DIGITAL EDUCATION

The B.S. in Digital Education at St. Thomas University is designed to prepare students to lead in an increasingly digital educational landscape. As global learning environments evolve, educators must be equipped not only with pedagogical knowledge but also with technical fluency. This program responds to that need, combining foundational teaching theory with advanced digital tools and instructional design methods.

Students graduate with the ability to create, implement, and evaluate technology-enhanced educational programs across diverse learning environments—from traditional classrooms to corporate training and online education platforms.

The student must choose a subject area for further study:

4.8.1 Concentration in Instructional Design in Digital Contexts

This concentration area provides hands-on experience in instructional design using e-learning platforms, multimedia tools, and authoring systems. Students learn to design content that is pedagogically sound, engaging, and adaptable to different learning environments.

4.8.2 Concentration in Psychosocial Educator in Digital Settings

This track explores the intersection of psychology, education, and digital technologies. It prepares students to support learners' emotional, social, and cognitive development in digital contexts and emphasizes the creation of safe, inclusive, and impactful learning environments.

4.8.3 Educational Objectives and Methodology

Graduates will be equipped with core competencies in:

- **Instructional Design & Evaluation:** Plan, develop, and assess digital education and training programs across platforms.
- **Digital Pedagogy:** Use technology to enhance learning outcomes, engagement, and accessibility.
- **Multimedia & Content Production:** Create visually and cognitively engaging materials using authoring tools, LMSs, and web platforms.
- **Data & Learning Analytics:** Analyze learning behaviors and adapt strategies accordingly.
- **Psychosocial Support & Development:** Promote emotional well-being, inclusivity, and digital citizenship.
- **Innovation in Teaching:** Apply forward-thinking methods and tools to adapt to future learning challenges.

Methodology: The curriculum integrates lectures, workshops, digital labs, field practice, and team-based project development. Students also engage in applied research and solution design for real-world learning environments.

4.8.4 Career Opportunities

Graduates of the Digital Education program are prepared for a broad range of roles, such as:

- Instructional Designer
- E-Learning Developer
- Digital Curriculum Specialist
- Multimedia Learning Developer
- Learning & Development Consultant
- Digital Trainer or Coach
- Psychosocial Learning Facilitator
- Online Education Coordinator
- Educational Technologist
- Digital Inclusion Consultant

Career pathways include K-12 education, higher education, corporate learning, government training programs, NGOs, and startups in edtech and online learning.

4.8.5 Curricular Program

Students must meet the following degree requirements:

A. General Education Requirements (30 CH)

- COM 105 - Introduction to Computer Science
- ENG 110 - English Composition III (W)
- ENG 320 - Digital Linguistics and Technical Writing (W)



- ENG 390 - Public Speaking
- LAW 100 - International Law
- One course in English Literature
- One course in Mathematics
- One course in Natural Science
- POL 200 - Global Poverty and International Responsibility (G)
- SOC 300 - Sociology of Media and Communication

B. Core Curriculum (45 CH)

- COM 275 - Environments and Technologies for Education
- COM 445 - Multimedia Database
- LAW 150 - Law in Digital Contexts
- MAT 150 - Foundations of Probability and Statistics
- PED 100 - Social History of Education
- PED 200 - Didactics and General Pedagogy
- PED 300 - Innovative Teaching Methodologies
- PED 250 - General Teaching and Special Education
- PED 360 - Digital Inclusion Processes and Open Educational Resources
- PED 400 - Research and Evaluation in Digital Educational Contexts
- PSY 150 - General Psychology
- PSY 310 - Neurocognitive Bases of Learning.
- PSY 250 - Development and Educational Psychology
- PSY 320 - Psychology of Innovation
- SOC 200 - Sociology of Digital Contexts

C. Concentration Requirements (18 CH)

Instructional Designers in Digital Contexts

- COM 120 - Introduction to Web Design
- COM 150 - New Media
- COM 250 - Introduction to Digital Imaging and Visualization
- COM 298 - Technologies for the Production of Multimedia Content for Education
- COM 410 - Learning Analytics
- PSY 430 - Neural Learning and Deep Learning

Psychosocial Educators in Digital Settings

- PED 350 - Digital Citizenship: Educational and Training Elements
- PSY 350 - Psychology of Interactions in Digital Contexts
- PSY 400 - Digital Technologies and Psychological Development
- PSY 450 - Risk Behaviors and Conduct and Psychopathologies in Digital Contexts
- SOC 220 - Sociopsychological Foundations of Digital Communities
- SOC 350 - Digital Communities: Educational and Formative Elements

D. Elective Courses (21 CH)

Students choose advanced-level electives (300–400 level) based on career interests, including specialized topics in education, sociology, psychology, and communications.

E. Capstone Requirement (6 CH)

- PED 495 - Senior project: A capstone research project or applied intervention focused on instructional design or psychosocial education in a digital environment.



4.9 BACHELOR OF SCIENCE IN NURSING - Program development in progress

Qualifying for the Health Profession of Nursing

Graduates in the Bachelor of Science in Nursing carry out professional autonomy activities directed at prevention, treatment, rehabilitation, and the safeguarding of individual and collective health, carrying out the functions identified by the regulations establishing the relevant professional profiles as well as by the specific deontological codes and using methodologies of planning by objectives of care in the developmental, adult and geriatric age.

They are endowed with adequate preparation in the basic disciplines, which enables them to understand best the most relevant elements, including gender, that underlie the physiological and pathological processes to which their preventive, therapeutic, comforting, and complementary interventions are addressed, and to achieve maximum integration with other professions. They must also know a) at least a second language, in addition to English, in the specific area of competence and for the exchange of general information; b) notions of nursing informatics.

4.9.1 Educational Objectives

The Nurse is a professional figure who works in the healthcare field and is responsible for general nursing care of a technical, relational, and educational nature, aimed at the developmental, adult, and geriatric ages, encompassing preventive, curative, comforting, and rehabilitative aspects. Its main functions are disease prevention, care of the sick and disabled of all ages, and health education. The training objectives are (i) Aimed at providing biomedical and preventive hygiene knowledge and the acquisition of basic nursing skills; (ii) In-depth study of pathophysiological, clinical pharmacological, and nursing knowledge to address the most common priority health problems in medical and surgical settings, with preventive interventions, targeting the acute phase of illness and educational and psycho-social support in the chronic phase; (iii) Specialized depth but also to the acquisition of knowledge and methodologies inherent to professional practice but also to the ability to work in teams and complex organizational contexts; Training activities are planned to develop methodological skills to understand scientific and nursing research also in support of the senior project; (iv) Internship experiences aimed at a gradual assumption of autonomy and responsibility under the supervision of experts.

This curricular rationale has been embodied in the gradually increasing number of credits assigned to internship experiences I, II, and III.

4.9.2 Methodology

The attainment of professional competence is achieved through a combination of theoretical and practical training, which also includes the acquisition of behavioral skills. This comprehensive approach ensures that, upon completing the training, the individual possesses complete mastery of all the skills necessary for practicing the profession. Online theoretical training is delivered via STU's e-learning platform. The lecturer schedules classes via streaming, and learning materials, questionnaires, and tests are available.

Practical training, an integral and qualifying part of professional training, is implemented through guided internship activities. The internship is conducted at public and private specialized healthcare services in collaboration with St. Thomas University.

4.9.3 Career Opportunities

After registering with the Professional Order of the country in which they intend to practice, the graduate in Nursing has multiple professional opportunities within public social-health facilities (hospitals, assisted living residences, social-health districts, territorial home care, ambulance, and helicopter care, etc.) and within private social-health facilities (private clinics and outpatient clinics, private residential facilities, cooperatives, etc.) as freelancers (home care, consulting, etc.).

Nursing graduates can continue their education by enrolling in Master's or Ph.D. programs.

4.9.4 Minimum Requirements for Admission

- 1) A high-school diploma (or equivalent) *or*, if the certificate was not earned in the U.S., proof of completion of secondary school that allows for university enrollment in the applicant's home country.
- 2) Candidates whose native language is not English must demonstrate proficiency in the English language.
- 3) Knowledge of Basic Biology, Chemistry, Mathematics, and Physics is required.

4.9.5 Curricular Program

Students must complete these curriculum requirements:



A. General Education Requirements (30 CH)

- COM 105 - Introduction to Computer Science
- ECO 120 - Introduction to Economics
- ENG 110 - English Composition III (W)
- ENG 230 - Scientific English for Health Studies (W)
- MAT 150 - Foundation of Probability and Statistics
- NUR 130 - Introduction to Public Health
- NUR 140 - Global Health Disparities (G)
- POL 200 - Global Poverty and International Responsibility (G)
- PSY 470 - Efficacy Communication and Public Speaking in the Health Professions
- SOC 300 - Sociology of Media and Communication

B. Core Courses (57 CH)

- COM 401 - Information Technology in Healthcare
- NUR 150 - Evidence-Based Nursing
- NUR 170 - Structure and Morphology of the Human Body
- NUR 190 - Functioning of the Human Body
- NUR 200 - Pathology and Laboratory Diagnostics
- NUR 230 - General Nursing
- NUR 250 - General Clinical Nursing - 6 CH
- NUR 290 - Communication and Therapeutic Education - 2 CH
- NUR 300 - History, Deontology, and Professional Ethics - 2 CH
- NUR 320 - Clinical Nursing in Medical Area - 4 CH
- NUR 340 - Surgical Clinical Nursing
- NUR 360 - Mother and Infant Nursing Care
- NUR 380 - Clinical Nursing in Chronic Illness, Disability, and Palliative Care - 4 CH
- NUR 390 - Critical Care Nursing - 6 CH
- NUR 400 - Psychiatric Clinical Nursing
- NUR 410 - Healthcare Management
- NUR 420 - Health Promotion, Disease Prevention, and Community Nursing

C. Professionalizing Internship (30 CH) The internship is mandatory for qualification to the health nursing profession.

NUR 470 - Internship I - 6 CH
NUR 475 - Internship II - 10 CH
NUR 480 - Internship III - 14 CH

D. Capstone Requirement (3 CH)

NUR 495 - Senior Project



4.10 BACHELOR OF SCIENCE IN NUTRITION AND DIETETICS - Program development in progress

The Bachelor of Science in Nutrition and Dietetics trains health professionals who are competent in all aspects of applying food and nutrition, including educational components and collaboration in implementing ethical food policies. The graduate dietitian possesses the knowledge, skills, and interpersonal skills necessary to perform with professional autonomy in the Administrative, Clinical, and Public Health areas.

In the administrative area, the dietitian ensures nutritional adequacy, both quantitatively and qualitatively, to individuals or groups of individuals, whether healthy or sick, in institutions or communities.

In the clinical area, the dietitian is responsible for devising, educating, monitoring, and evaluating a comprehensive clinical nutrition plan to restore optimal health.

In public health, the dietitian promotes confident food choices by individuals or groups to improve or maintain their nutritional health and minimize the risk of disease resulting from poor nutrition.

4.10.1 Educational Objectives

The Bachelor of Science in Nutrition and Dietetics has as its educational objectives to lead students to know how to organize and coordinate specific activities related to nutrition in general and dietetics in particular, how to collaborate with agencies responsible for the protection of the hygienic and sanitary aspects of catering; how to know how to work out the composition of food rations to meet the nutritional needs of population groups and plan the organization of dietary services for healthy and sick communities; to know how to develop, formulate and implement diets and monitor their acceptability by the patient; to understand how to collaborate with teams in the multidisciplinary treatment of eating disorders; and, finally, to know how to carry out didactic-educational and informational activities aimed at disseminating the principles of proper nutrition, which enables the recovery and maintenance of good health for individuals, communities and population groups.

4.10.2 Methodology

The attainment of professional competence is achieved through a combination of theoretical and practical training, which also includes the acquisition of behavioral skills. This comprehensive approach ensures that, upon completion of the training, the individual possesses complete mastery of all the skills necessary for the practice of the profession. Online theoretical training is delivered through STU's e-learning platform. The instructor schedules classes via streaming, and teaching materials, questionnaires, and tests are available.

Practical training, an integral and qualifying part of professional training, is implemented through guided internship activities. The internship is at specialized public and private companies affiliated with St. Thomas University.

4.10.3 Career Opportunities

Dietetics graduates work as employees or freelancers in healthcare facilities, as well as in public and private companies operating in the food, nutrition, and dietetics fields.

Occupational outlets for the graduate in Dietetics can be identified in:

- Dietetics, clinical nutrition, and hospital pharmacy services are present in public and private hospital facilities;
- food services and cafeterias of schools, communities, industries, and other establishments;
- territorial outpatient services of the health system assigned to hygiene, nutrition education, and home dietary care;
- services for planning or organizing interventions, including educational interventions in the field of nutrition;
- industries in the food sector.

4.10.4 Minimum Requirements for Admission

1. A high-school diploma (or equivalent) or, if the certificate was not earned in the U.S., proof of completion of secondary school that allows for university enrollment in the applicant's home country.
2. Candidates whose native language is not English must demonstrate proficiency in the English language.
3. Knowledge of Basic Biology, Chemistry, Mathematics, and Physics is required.

4.10.5 Curricular Program

Students must complete these curriculum requirements:



A. The General Education Requirements (30 CH)

- COM 105 - Introduction to Computer Science
- ECO 120 - Introduction to Economics
- ENG 110 - English Composition III (W)
- ENG 230 - Scientific English for Health Studies (W)
- MAT 150 - Foundation of Probability and Statistics
- NUR 130 - Introduction to Public Health
- NUR 140 - Global Health Disparities (G)
- POL 200 - Global Poverty and International Responsibility (G)
- PSY 470 - Efficacy Communication and Public Speaking in the Health Professions
- SOC 300 - Sociology of Media and Communication

B. Core Courses (54 CH)

- NUT 110 - Biomedical Science I
- NUT 200 - Food Hygiene and Safety
- NUT 210 - Biomedical Science II
- NUT 220 - Basics of Clinical Nutrition
- NUT 230 - Physiology and Biochemistry of Nutrition
- NUT 240 - Food Chemistry and Commodity Chemistry
- NUT 270 - Nutrition Assessment
- NUT 290 - Specialist Medicine
- NUT 300 - Nutrition in Clinical Settings I
- NUT 310 - Food and Service Management
- NUT 330 - Nutrition in Clinical Settings II
- NUT 340 - Nutrition in Pregnancy and Developmental Age
- NUT 380 - Community Nutrition
- NUT 390 - Nutrition Counselling
- NUT 400 - Nutrition and Prevention
- NUT 410 - Health Promotion and Nutrition Education
- NUT 420 - Quality and Safety in Mass Catering
- NUT 430 - Research Methodology and Updating in Dietetics

C. Laboratory (3 CH)

- NUT 250 - Laboratory I - (1 CH)
- NUT 350 - Laboratory II - (1 CH)
- NUT 450 - Laboratory III - (1 CH)

D. Professionalizing Internship (30 CH) The internship is mandatory for qualification as a dietitian.

- NUT 470 - Internship I - (8 CH)
- NUT 475 - Internship II - (10 CH)
- NUT 480 - Internship III - (12 CH)

E. Capstone Requirement (3 CH)

NUT 495 - Senior Project



SECTION 5 - STU MASTER'S DEGREE PROGRAMS

The graduate programs represent excellence in their respective curricular areas. Master's degree programs aim to provide students with the following qualities through an international environment and a highly qualified faculty and student body: Innovative skills and competencies, career entry employment skills, and regional opportunities for private economic development through national and international development programming.

5.1 MINIMUM REQUIREMENTS FOR ADMISSION

Students must meet the following criteria:

1. A bachelor's degree from an American college, university, or equivalent from a non-US institution.
2. Applicants whose first language is not English must demonstrate knowledge of the English language. Students who attended university Colleges where English was the primary language of instruction for all subjects are exempt from this demonstration.
3. A GPA of **2.5** on a **4-point** scale or equivalent
4. Evidence of adequate knowledge to support a degree course:

To enter the **Master of Arts in Digital Education** program, students must have

- A Bachelor's Degree from an accredited higher education institution in Education, Digital Education, Instructional Design, Educational or Instructional Technology, or a related field.
- A Statement of Purpose that describes relevant academic and professional background, why you want the MA in Digital Education, and how this degree will enable you to achieve both professional and personal goals.
- A resume, curriculum vitae, or written description of relevant experience in digital education, teaching, instructional design, or related fields.
- Basic knowledge of computer science that includes, but is not limited to, fundamental concepts such as algorithms, data structures, programming languages, computer architecture, operating systems, and software engineering.

To enter the **Master of Arts in Fashion Sciences** program, students must have

- A Bachelor's degree from an accredited higher education institution.
- A Statement of Purpose that describes relevant academic and professional background, why you want the MA in Fashion Science, and how this degree will enable you to achieve both professional and personal goals.
- A resume, curriculum vitae, or written description of relevant experience in fashion or related fields.
- Basic computer skills.

To enter the **Master of Business Administration** program, students must have a bachelor's degree in business. Those students who do not have a bachelor's degree in business may satisfactorily demonstrate proficient business understanding by completing the Beginning Certificate in International Business.

To enter **Master of Cybersecurity** or **Informatics** programs, students must know the following:

- Undergraduates who study in a field other than Information Systems, Artificial Intelligence, Data Security, or related fields must take the following courses as prerequisites before entering the Master's programs.
- *Calculus*: This course covers differential and integral calculus topics, which are foundational to many concepts in data analytics.
- *Introduction to Programming*: This course introduces basic programming concepts and languages, such as Python or Java.
- *Statistics*: This course covers fundamental statistical concepts, including probability, hypothesis testing, and regression analysis.
- *Data Structures and Algorithms*: This course covers the design and analysis of algorithms and data structures, including arrays, linked lists, and trees.

To enter the **Master of Science in Nursing, Public Health Nursing, or Human Nutrition** programs, students must have



- A Bachelor's Degree in nursing, nutrition, or dietetics from an accredited or appropriately licensed higher education institution.
- A Statement of Purpose that describes relevant academic and professional background, why you want the Master of Science in Nursing, Public Health Nursing, or Human Nutrition, and how this degree will enable you to achieve both professional and personal goals.
- A resume, curriculum vitae, or written description of relevant experience in nursing and nutrition and dietetics, teaching, instructional design, or related fields.

5.2 GENERAL REQUIREMENTS FOR THE ACQUISITION OF A MASTER'S DEGREE

To receive a Master's Degree, STU students must successfully:

1. Complete the curriculum with at least 36-60 approved credit hours, depending upon the specific degree's requirements
2. At least 70% of the coursework must be completed at STU.
3. Maintain a minimum of a 3.0 cumulative GPA on a 4-point scale.
4. A maximum of 9 credit hours may be transferred into a graduate program. All transferred courses must have a grade of B or better.
5. All credits must be completed within five years of enrollment.



5.3 MASTER OF ARTS IN DIGITAL EDUCATION

The MA in Digital Education at St. Thomas University is designed to prepare graduate students for leadership in digital learning environments. This program blends theory, applied research, and hands-on practice to equip students with advanced skills in instructional design, multimedia content creation, digital pedagogy, and educational technology integration.

Rooted in the social, psychological, legal, and technical foundations of modern education, this master's degree addresses the complex challenges of teaching and learning in digital, hybrid, and remote settings. It is ideal for educators, designers, technologists, and professionals who seek to innovate in schools, universities, training organizations, and beyond.

5.3.1 Concentration Area

5.3.1.1 Instructional Design

This emphasis prepares students to design, implement, and manage instructional solutions using digital platforms and media. Coursework explores design models, learner engagement strategies, and evaluation techniques across formal and informal learning environments.

5.3.1.2 Psychosocial Educator in Digital Settings

This track explores how social, emotional, and psychological factors intersect with digital learning. It trains professionals to build inclusive, safe, and developmentally supportive online learning spaces using insights from psychology and counseling.

5.3.2 Educational Objectives and Methodology

Graduates will be able to:

- Design and manage engaging online and hybrid learning environments.
- Apply instructional theory to create multimedia and digital resources tailored to diverse learners.
- Evaluate and enhance e-learning effectiveness using learning analytics and user feedback.
- Understand the psychological and social dynamics of learners in digital contexts.
- Integrate ethical, inclusive, and culturally responsive practices in digital education.
- Lead educational innovation across institutional, corporate, and nonprofit settings.

Methodology: The curriculum blends seminar-style instruction with lab-based workshops, collaborative group work, applied field projects, and thesis research. Faculty emphasize evidence-based practices, learner-centered design, and ethical use of technology.

5.3.3 Career Opportunities

Graduates of the MA in Digital Education are well-positioned for high-demand roles across the education, corporate, nonprofit, and government sectors, such as:

- Instructional Designer
- E-Learning Developer
- Online Course Instructor
- Learning & Development Specialist
- Educational Technologist
- Curriculum Developer
- Digital Learning Consultant
- Multimedia Content Designer
- Educational Program Manager
- Nonprofit and Community Education Leader

Additionally, this degree opens doors to careers in edtech innovation, youth development, risk prevention, corporate training, and digital social services.

5.3.4 Curricular Program (36 CH)

All students must complete 36 Credit Hours for the MA in Digital Education, including 6 Credit Hours for their Master's Thesis.



A. Core Curriculum (18 CH) - Students complete all of the following courses:

- PED 560 - Pedagogy and Learning
- PED 580 - Information Technology Methodologies for E-Learning
- PED 600 - Design and Evaluation of Online Pathways
- PED 610 - Digital Communication
- PED 650 - Education in the Knowledge Society
- PED 660 - E-Learning and Digital Education Research Methods

B. Concentration Area (12 CH) - Students select one of two tracks and complete 4 courses:

Instructional Design

- COM 575 - Conceptual Modeling for the Semantic Web
- COM 635 - Ethics, Society, and Privacy
- PED 550 - History of Education and Communication Processes
- PED 590 - Promotion and Monitoring of Digital Culture and Research

Optional Independent Study:

- PED 665 - Reading and Conference

or

- PED 670 - Research

Psychosocial Education in a Digital Setting

- PED 665 - Reading and Conference - Independent Study
- PED 670 - Research - Independent Study
- PSY 600 - Educational Psychology and Multimedia Learning
- PSY 610 - Machine Epistemology
- PSY 620 - Social Psychology: Counseling Techniques for Education
- SOC 600 - Sociology of Digital Media

C. Research and Master's Thesis (6 CH)

- PED 690 - Master's Thesis: An original project or research thesis exploring a current issue in digital education, instructional design, or psychosocial learning.

D. Additional Elective Courses (Optional)

Students may take up to 4 non-compulsory courses to deepen their understanding:

- COM 555 - Natural Language Processing
- HIS 600 - Digital Bibliography and Librarianship
- LAW 600 - Information and Media Law
- LAW 650 - Criminal Law of Information Technology
- PED 570 - Innovative Tools for Teaching
- SOC 610 - Digital Innovation and New Welfare



5.4 MASTER OF ARTS IN FASHION BRAND MANAGEMENT

The MA in Fashion Brand Management at St. Thomas University prepares students to lead the strategic and creative dimensions of fashion branding in a global, dynamic marketplace. Rooted in deep industry insight, this program provides the tools to build and position iconic fashion and luxury brands, analyze evolving markets, and drive innovation through ethical, sustainable, and digital practices. Graduates emerge ready to take on leadership roles in branding, marketing, and business development—armed with the critical thinking, communication, and operational skills required to shape the future of fashion.

5.4.1 Educational Objectives and Methodology

This master's program focuses on developing professionals with the ability to:

- Conduct advanced strategic market research to anticipate trends, analyze competitors, and identify brand opportunities.
- Manage brand and product portfolios with a focus on high-value positioning and global consistency.
- Lead digital transformation efforts using tools like AI, big data analytics, and social media platforms to boost brand presence and engagement.
- Apply principles of ethical leadership and sustainability to manage supply chains, marketing, and communication strategies.
- Work cross-functionally with designers, analysts, retailers, and communication experts to shape a cohesive and successful brand narrative.

Methodology: Instruction blends real-world consulting projects, case study analysis, workshops, and seminars with industry professionals. A strategic, experience-based learning approach ensures students can apply theory to complex fashion business challenges.

5.4.2 Career Opportunities

Graduates are prepared for careers in both established and emerging fashion businesses, holding key positions such as:

- **Brand Manager:** Oversees the brand's public image and consistency across marketing, communications, and retail.
- **Marketing Manager:** Designs sales support strategies, oversees campaign execution, and manages communications aligned with business goals.
- **Buyer:** Manages procurement strategies, supplier negotiations, and product selection.
- **Retail Manager:** Directs retail strategy, from product display to sales planning and market competitiveness.
- **E-commerce and Digital Marketing Specialist:** Focuses on online sales platforms, analytics, and digital brand experiences.
- **Luxury Brand Consultant or Trend Forecaster:** Advises companies on strategic direction, innovation, and consumer alignment.

5.4.3 Curricular Program (36 CH)

Students must complete a total of 36 Credit Hours, including 6 CH for the Master's Thesis.

A. Core Curriculum (30 CH)

This program emphasizes cross-functional brand management, business ethics, and the dynamics of the luxury market.

Required courses include:

- FAS 501 - International & Fashion Markets - CH 2
- FAS 502 - Luxury & Fashion Marketing - CH 2
- FAS 503 - Sociology of Consumer Behavior - CH 2
- FAS 504 - Sustainable Economics of Fashion Global Business
- FAS 505 - Business Ethics and Analytics - CH 2
- FAS 506 - Financial Reporting - CH 2
- FAS 507 - Buying Techniques & Merchandising - CH 2
- FAS 508 - Circular Economy
- FAS 509 - Licensing & Brand Extension - CH 2
- FAS 510 - Digital communication - CH 2
- FAS 511 - Third Sector and Fundraising for Fashion - CH 2
- FAS 512 - Fashion Brand Design
- FAS 690 - Personal Branding & Portfolio

B. Research and Master's Thesis (6 CH)

- FAS 695 - Master's Thesis: Culminates in a final research or consulting project addressing a contemporary challenge in brand strategy, digital transformation, or sustainable brand development.



5.5 MASTER OF ARTS IN SUSTAINABLE FASHION DESIGN

The MA in Sustainable Fashion Design at St. Thomas University is an advanced program that equips future fashion professionals with the creative, technical, and ethical skills needed to lead sustainable innovation in the fashion and luxury sectors. With a unique focus on environmentally responsible design, circular production processes, and technological experimentation, this degree prepares students to become agents of change in an industry undergoing rapid transformation. Students will learn to conceptualize, prototype, and communicate fashion collections that align with ecological values while responding to aesthetic, cultural, and market demands.

5.5.1 Educational Objectives and Methodology

The program fosters the development of high-level design competencies rooted in sustainability, ethics, and creative innovation. Upon completion, students will be equipped to:

- **Apply circular design principles** across all stages of production—from material sourcing to end-of-life reuse and upcycling.
- **Utilize innovative materials and technologies**, including eco-textiles, fabric biotechnology, and low-impact production tools.
- **Analyze and optimize fashion supply chains** to enhance transparency, reduce environmental impact, and promote social fairness.
- **Conduct interdisciplinary research** to develop solutions that are both environmentally responsible and commercially viable.
- **Lead ethically with a global vision**, communicating the value of sustainable design to a wide audience, from consumers to investors.

Methodology: The program integrates research, design labs, and real-world experimentation. Emphasis is placed on prototyping, textile manipulation, 3D simulation, and project development using zero-waste and regenerative design principles.

5.5.2 Career Opportunities

Graduates of the program will be positioned for impactful roles in the global fashion and sustainability ecosystem, including:

- **Sustainable Fashion Designer:** Develops apparel and accessories that combine aesthetics with environmental and social responsibility.
- **Trend Researcher:** Tracks sociocultural and environmental patterns to influence sustainable product development.
- **Product Development Technician:** Oversees prototyping, sampling, and production alignment with sustainability goals.
- **Fashion Graphic Designer:** Creates branding and visual storytelling assets for sustainable fashion campaigns.
- **Circular Fashion Consultant or Start-up Founder:** Leads innovation in upcycling, eco-manufacturing, and ethical fashion entrepreneurship.

5.5.3 Curricular Program (36 CH)

All students must complete 36 Credit Hours, which include foundational, technical, and research-focused coursework.

A. Core Curriculum (30 CH)

- FAS 527 - Project Management & Start-up - CH 2
- FAS 528 - Collection Costing & Processing - CH 2
- FAS 529 - Eco-fashion & Sustainable Fabrics
- FAS 530 - Laws and Certifications - CH 2
- FAS 531 - 3D Patternmaking
- FAS 532 - Moulage and zero waste
- FAS 533 - Collection Design & Planning - CH 6
- FAS 534 - Upcycling Techniques
- FAS 535 - Fashion Graphic Design (Photoshop & InDesign)
- FAS 690 - Personal Branding & Portfolio

B. Research and Master's Thesis (6 CH)

- FAS 695 - Master's Thesis: A final capstone project that may include a sustainable collection prototype, design research, or a start-up business plan aimed at industry innovation.



5.6 MASTER OF ARTS IN FASHION ART DIRECTION

The MA in Fashion Art Direction at St. Thomas University is an interdisciplinary, immersive program that prepares students to become visionary leaders in the visual storytelling and creative direction of fashion brands. This unique degree bridges the gap between creativity, strategy, and technology, equipping graduates with the conceptual, artistic, and managerial skills needed to craft compelling narratives, curate brand identities, and direct cutting-edge fashion media campaigns.

The program integrates practical production, aesthetic research, digital innovation, and strategic brand communication, training students to lead visual projects across platforms—from fashion shows and advertising to editorial photography and multimedia installations.

5.6.1 Educational Objectives and Methodology

The program aims to prepare students for key leadership roles at the intersection of creative direction, design strategy, and digital innovation. Graduates will acquire:

- **Creative and visual storytelling skills:** Master the art of conceptualizing visual narratives that align with a brand's identity and values across diverse formats (photo, video, digital, print).
- **Strategic direction of artistic projects:** Lead the entire lifecycle of a fashion media campaign—from ideation and production to execution—while coordinating multidisciplinary teams.
- **Mastery of digital tools and platforms:** Use advanced software and visual technologies (e.g., digital image processing, AR/VR, 3D modeling, and motion graphics) to enhance brand engagement.
- **Trend and visual culture analysis:** Develop a refined understanding of fashion aesthetics and global trends, applying cultural insights to visual campaigns.
- **Leadership, communication, and presentation skills:** Articulate creative concepts persuasively to stakeholders and collaborate effectively with diverse teams.

Methodology: The curriculum blends theory and hands-on experience, with workshops, collaborative projects, professional mentorships, and real-world simulations. Emphasis is placed on ideation, prototyping, visual curation, and creative strategy.

5.6.2 Career Opportunities

Graduates of the MA in Fashion Art Direction will be prepared to lead creative projects within a variety of roles in the global fashion and media sectors:

- **Fashion Art Director:** Designs and supervises visual communication strategies for fashion brands and campaigns.
- **Visual Marketing Manager:** Develops visual strategies to boost brand visibility and consumer engagement.
- **Fashion Stylist:** Curates editorial, commercial, or runway looks that visually represent brand identity and aesthetic.
- **Image and Branding Consultant:** Shapes visual brand identities and provides personal image consulting.
- **Fashion Event Designer/Manager:** Plans and executes immersive fashion experiences, runway shows, and brand installations.
- **Fashion Exhibition Curator:** Organizes and manages exhibitions that interpret fashion as an art form.

5.6.3 Curricular Program (60 CH)

All students must complete 60 Credit Hours, structured into a comprehensive visual and design-based progression of courses and thesis research.

A. Core Curriculum (54 CH)

This sequence emphasizes the development of technical, aesthetic, and managerial proficiencies essential for advanced visual communication in fashion:

- FAS 600 - Technical and Design Drawing - 4 CH
- FAS 605 - Digital photography - 4 CH
- FAS 610 - Project Culture - 4 CH
- FAS 615 - Fashion Setting - 4 CH
- FAS 620 - Project Culture - 2 CH
- FAS 625 - Fashion Setting - 6 CH
- FAS 630 - Videography - 4 CH
- FAS 635 - Web Design - 4 CH
- FAS 640 - Digital Image Processing - 4 CH
- FAS 645 - Art Direction - 6 CH



- FAS 650 - Virtual Architecture - 4 CH
- FAS 655 - Digital Video - 4 CH
- FAS 660 - Light Design - 2 CH
- FAS 665 - Concept Planning - 2 CH

B. Research and Master's Thesis (6 CH)

- FAS 695 - Master's Thesis: A culminating research or creative project that demonstrates the student's mastery of visual storytelling, artistic direction, and strategic execution in the fashion communication field.



5.7 MASTER OF SCIENCE IN ARTIFICIAL INTELLIGENCE SYSTEMS

Artificial Intelligence has gained a central position in society and economic systems worldwide. It radically changes our relationship with the significant issues of the contemporary world, including health, security, production, transportation, and education. The role of Artificial Intelligence is central to society and will continue to grow. At the same time, implementing computer systems that express such innovation requires a methodological and architectural foundation in software development and database design. The pathway of the Master of Science in Artificial Intelligence Systems incorporates the fundamental features of the changes taking place with a vision attentive to the future evolution of Artificial Intelligence and computer systems development.

The major topics addressed include interoperability among information systems, database development (including multimedia), knowledge management, personalized information services, autonomous and multi-agent systems, web-centric services, data warehouses, and machine learning.

The Master of Science in Artificial Intelligence Systems offers two areas of concentration:

5.7.1 Methodologies and Applications with three subareas

5.7.1.1 Machine Vision

Machine Vision focuses on enabling computers to interpret and make decisions based on visual inputs. This minor explores the fundamental principles of image processing, pattern recognition, and computer vision. Students will explore techniques for object detection, facial recognition, and scene understanding, as well as the underlying algorithms, such as convolutional neural networks (CNNs) and deep learning frameworks that power these technologies. Practical applications include developing systems for autonomous vehicles, medical image analysis, and industrial inspection. By mastering these concepts, students can create solutions that enhance the capability of machines to understand and interact with their environments visually.

In addition to theoretical knowledge, the Machine Vision minor emphasizes hands-on experience with state-of-the-art tools and software. Students will engage in projects that require them to apply their learning to real-world problems, such as developing vision systems for drones or robotic assistants. This practical approach ensures graduates are well-equipped to tackle challenges in various industries, from healthcare to automotive.

By the end of the program, students will have a comprehensive understanding of how to design, implement, and optimize robust and efficient vision systems.

5.7.1.2 Methodologies

The Methodologies minor program is dedicated to the systematic approaches and best practices in developing and deploying artificial intelligence systems. This area covers essential topics such as algorithm design, data science, and statistical methods, providing students with a strong foundation in the theoretical underpinnings of AI. It also includes an in-depth study of machine learning models, including supervised, unsupervised, and reinforcement learning techniques. Students learn to select the appropriate models for specific tasks, tune them for optimal performance, and assess their effectiveness using various metrics and validation techniques. The program also emphasizes hands-on experience, where students gain proficiency in software development practices tailored to AI projects, including agile methodologies, version control, and collaboration tools.

Students will also gain proficiency in software development practices tailored to AI projects, including agile methodologies, version control, and collaboration tools. The curriculum emphasizes the importance of ethical considerations and responsible AI, focusing on addressing bias, ensuring fairness, and promoting transparency. Through case studies and hands-on projects, students apply these methodologies to real-world scenarios, preparing them to lead AI initiatives in diverse fields such as finance, healthcare, and technology.

By the end of the minor, students will be equipped with the skills to design, implement, and manage reliable, ethical, and scalable AI systems.

5.7.1.3 Intelligent Robots

The Intelligent Robots minor is a unique program integrating AI with robotics to create autonomous systems capable of performing complex tasks. This minor covers the fundamentals of robotics, including kinematics, dynamics, and control systems, as well as advanced topics such as sensor integration, path planning, and autonomous navigation. Students will learn how to develop algorithms that enable robots to perceive their surroundings, make decisions, and execute actions in dynamic environments. Key areas of study include robotic vision, motion planning, and human-robot interaction.

Practical experience is a cornerstone of this minor, with students participating in lab sessions and projects that involve designing, building, and programming intelligent robots. These projects may range from developing



robotic arms for manufacturing to creating service robots for healthcare or hospitality. The curriculum also explores the ethical and societal implications of robotics, preparing students to address the challenges and opportunities that arise as robots become increasingly integrated into everyday life. Graduates will have the expertise to innovate in the rapidly evolving field of robotics, contributing to advancements in automation, artificial intelligence, and human-machine collaboration.

5.7.2 Artificial Intelligence and Innovation

The Artificial Intelligence and Innovation minor is designed to equip students with the skills and knowledge necessary to drive technological advancements and develop innovative solutions utilizing AI. This minor explores the intersection of AI and entrepreneurship, focusing on how artificial intelligence can be leveraged to create innovative products, services, and business models. Students will explore various AI technologies, including natural language processing, machine learning, and data analytics, and learn how to apply these technologies to solve real-world problems creatively.

Courses will include case studies of successful AI startups and companies, providing insights into the strategies and processes that lead to groundbreaking innovations.

In addition to technical proficiency, the minor emphasizes the importance of creativity, critical thinking, and strategic planning in the innovation process. Students will engage in hands-on projects that require them to conceptualize, design, and implement AI-driven solutions, often working in interdisciplinary teams to simulate real-world scenarios. The curriculum also covers intellectual property rights, funding, and the ethical implications of AI innovations, preparing students to navigate the complex landscape of technology development and commercialization.

By the end of the program, students will be equipped with the tools and mindset to lead and inspire AI-driven innovation across various industries, including healthcare, finance, entertainment, and beyond.

5.7.3 Educational Objectives and Methodology

The primary objective of the Master of Science in Artificial Intelligence Systems is to train professionals who are exceptionally competent in data and knowledge modeling, information flow analysis and decision-making, machine learning, automatic problem-solving, or, in general, in advanced techniques and models for software and database design and development. Graduate students can conceive, design, and develop information systems using modern artificial intelligence and distributed software systems development technologies. Students will have the skills necessary to solve problems posed by the growing need for integration and interaction between complex and potentially heterogeneous information systems. At the end of the master's program, graduates should be able to operate autonomously on projects and facilities, taking into account both the methodological and scientific training of students, as well as the development of practical and design skills.

5.7.4 Career Opportunities

The occupational fields for this study include the design, organization, management, and maintenance of complex information systems for organizations that utilize sophisticated and potentially geographically distributed information systems. Computer systems are particularly relevant for employment and professional advancement in industries, services, health, science, culture, cultural heritage, and public administration.

The innovative applications include artificial intelligence, machine learning, neural networks, soft computing, databases, business process management, automatic natural language processing, human-computer interaction, and multimedia databases. Our graduates can work as software architects, producing innovative computing solutions and services in research and development centers.

5.7.5 Curricular Program (36 CH)

The master's program offers four different curricula:

A. Core Courses (21 CH) These courses provide the foundation for upper-level graduate courses.

- COM 521 - Introduction to Robotics
- COM 525 - Artificial Intelligence
- COM 530 - Signal, Image, and Video
- COM 535 - Natural Language Understanding
- COM 621 - Human-Machine Dialogue
- COM 625 - Artificial and Biological Neural Systems
- COM 630 - Artificial Intelligence and Innovation



B. Concentration Area (9 CH). To complete the Master's degree in AIS, students must choose an area of concentration most relevant to their career goals. All courses build on what students have learned in the core courses of the Master's in Artificial Intelligence Systems program. Students should consult their advisor about scheduling to plan to complete the curriculum.

Methodologies and Applications

- **Computer Vision**
COM 522 - Computer Vision
COM 523 - Advanced Computer Vision
COM 524 - Trends and Applications of Computer Vision
or
- **Methodologies**
COM 526 - Advanced Computer Vision
COM 527 - Advanced Topics in Machine Learning and Optimization
COM 528 - Optimization Techniques
or
- **Intelligent Robots**
COM 531 - Distributed Robot Perception
COM 532 - Optimization-Based Robot Control
COM 533 - Robot Planning and Its Application

Artificial Intelligence and Innovation

- COM 536 - Bio-Inspired Artificial Intelligence
- COM 537 - Innovation and Entrepreneurship Basic
- COM 538 - Sensing and Radar Technologies

C. General Electives (3 CH), one course chosen by the student

- COM 540 - Analysis and Visualization of Complex Networks
- COM 541 - Performance Evaluation: Simulation and Modeling
- COM 542 - Bioinformatics
- COM 543 - Natural Language Technologies
- COM 544 - Analysis and Processing of Digital Signals

D. Research and Master's Thesis (3 CH)

- COM 690 - Master's Thesis



5.8 MBA - MASTER IN BUSINESS ADMINISTRATION

The Master of Business Administration is designed for students who have completed a Bachelor of Business Administration or earned a similar degree from a recognized university and wish to develop their management skills to advance their professional careers.

Students without a bachelor's degree in business must complete the Beginning Certificate in International Business.

St. Thomas University offers a Master of Business Administration program that emphasizes a synergistic, interdisciplinary approach to innovative and sustainable business concepts and practices. The degree integrates dominant paradigms in management, sociology, ecology, and technological innovation to provide tomorrow's business leaders with the skills vital for success. Tomorrow's business leaders cannot simply follow the examples of their predecessors. The next generation must seek to promote financially sound, ecologically sustainable, and socially just initiatives within their organizations and economic spheres. Companies must adopt sustainable practices and proactively address current trends.

They must meet the social and governmental challenges for change. The curriculum is structured to give students a foundation in traditional business practices and the latest sustainability principles in business operations. In addition to core materials and philosophy, the international and cultural diversity of the student body, faculty, and staff combine to provide a rich learning experience.

STU's MBA program offers two different curricula:

5.8.1 Green Management, Energy, and Corporate Social Responsibility

The Master's degree in Business Administration with a concentration in Green Management, Energy, and Corporate Social Responsibility prepares students to apply sustainable development skills and respond to the needs and potential for social transformation. **The program focuses on global development and environmental problems recognized in international agreements. It also explores how to address these challenges by promoting sustainable development, which is becoming a key focus of business models.** Economic sources must strike a balance between profitability, social equity, and environmental responsibility, based on a culture and philosophy that transforms the organizational structure and succeeds in making Corporate Social Responsibility not an industry issue, but the DNA of companies that promote the country's development. The master's degree aims to provide a space for reflection, promoting sustainable development and the development of critical, analytical, and integrative skills for addressing environmental and sustainable development challenges.

5.8.2 Marketing and Digital Communication

The Master of Business Administration with a concentration in Marketing and Digital Communication is designed for individuals seeking to acquire the skills necessary to implement omnichannel and customer-centric digital marketing strategies. It is dedicated to students who, alongside the skills acquired in business administration, want to grow professionally in marketing and digital communication.

5.8.3 Educational Objectives and Methodology

The main objective of the Master of Business Administration degree is to provide the in-depth preparation, knowledge, and skills needed to succeed in managerial roles in general management as well as functional directorates in various types of companies operating in diverse sectors. In particular, the focus is on organizational behavior, negotiation techniques, and change and innovation management, essential for holding managerial and coordinating positions.

The knowledge and skills necessary to:

- use quantitative data processing methodologies to support decision-making processes;
- interpret the global macroeconomic and geopolitical scenario to contextualize business activity and identify development opportunities and threats;
- enhance the sustainability of business activity, including the perspective of process quality and environmental protection;
- understand the regulatory and fiscal environment in both national and international contexts;
- determine the business's financial needs and how best to meet them;
- assess the exposure of businesses to the various types of risks and develop plans to contain exposure;
- interpret and process economic and financial information for business performance planning, control, and evaluation;
- identify management and business development strategies best suited to the contextual conditions.



The curriculum includes a series of core teachings that delve into business management from the perspective of complex, multinational organizations. After the core teachings, students select their specialization. Students will prepare a final thesis on developing and deepening the skills acquired in the chosen field. Instead of a thesis, students may opt for a project report.

A faculty member guides and directs both the thesis and the project report.

5.8.4 Career Opportunities

STU offers an MBA program that emphasizes a synergistic, interdisciplinary approach to mastering sustainable business concepts and practices. Its educational philosophy integrates the dominant paradigms in management, sociology, ecology, and cultural studies to develop the skills tomorrow's business leaders will need to thrive in the business world. After completing their MBA, graduates can work in any field of economics, from local businesses to the financial world.

5.8.5 Curricular Program (42 CH)

A. Core Courses: These courses provide the foundation for graduate courses.

- BUS 555 - Advanced Accounting
- BUS 560 - Corporate Finance
- BUS 565 - Quantitative Methods for Decision Making
- BUS 570 - Ethics, Law, and Business
- BUS 575 - Marketing Strategy and Implementation
- BUS 585 - Organizational Theory and Operations Management
- BUS 590 - Global Economics
- BUS 605 - E-Commerce
- BUS 610 - Business Strategy
- BUS 612 - Entrepreneurship

B. Concentration Area: Students must choose a concentration area and select three courses to complete their MBA. The courses build on what students have learned in the MBA core courses, allowing them to choose the courses that will be most relevant to their career goals. Students should consult their advisor to plan their second year of study, taking into account scheduling and class availability.

Green Management, Energy, and Corporate Social Responsibility

- BUS 620 - Corporate Social Responsibility
- BUS 621 - Sustainable Supply Chain Management
- BUS 645 - Sustainability Strategies
- BUS 646 - Energy Economics
- BUS 647 - Economics of Renewables and Energy Saving Technologies

Marketing and Digital Communication

- BUS 648 - Web marketing and digital advertising
- BUS 649 - Digital communication goals: branding and performance
- BUS 650 - Digital communication strategies
- BUS 660 - Influencer marketing
- BUS 670 - Reputation and crisis management

C. Research and Master's Thesis (3 CH)

- BUS 690 - Master's Thesis



5.9 MASTER OF SCIENCE IN CYBERSECURITY

The Master of Science in Cybersecurity program provides a comprehensive understanding of cybersecurity methods, approaches, and concepts. It covers various cybersecurity techniques and continuously updates its content to address emerging issues and management solutions. The program explores cryptographic mechanisms and their application in securing computer systems and networks. It is designed for individuals with a solid foundation in information and communication technologies.

The program also covers the nature, scope, and significance of cybersecurity, justifying and exploring critical concepts. It examines cybersecurity threats and the technological and procedural mechanisms to mitigate them. The role of cryptography in ensuring security, including the use of algorithms in security programs, is discussed. The program also highlights the crucial support function of management and the role of cryptography.

5.9.1 Objectives and Methodology

The goals that the Master of Science in Cybersecurity aims to achieve are:

- Equip students with practical and applied skills to address the evolving demands of the cybersecurity field.
- Enhance proficiency in the latest tools, techniques, strategies, and technologies relevant to cybersecurity.
- Foster critical thinking abilities in analyzing how organizations manage security.
- Provide direct access to industry professionals with specialized expertise in crucial cybersecurity areas.
- Offer hands-on experience through real-world case studies that reflect contemporary challenges in the field.

5.9.2 Career Opportunities

The widespread global adoption of data management and production, facilitated by information technology, has made it increasingly critical for professionals to ensure cybersecurity in public and private institutions and companies, regardless of their size.

The professional profiles that are increasingly in demand and to which St. Thomas University is responding with the Master's program in Cybersecurity are:

Cybersecurity Expert, Data Protection Designer, Chief Information Security Officer, Chief Security Officer, Security Administrator, Security Architect, Security Engineer, Security Analyst, Ethical Hacker, Security Developer, General Data Protection Regulator, Digital Forensic Analyst, Data Protection Officer, and ICT Security Manager.

5.9.3 Curricular Program (36 CH)

A. Core Courses (27 CH)

COM 500 - Introduction to Cybersecurity
COM 505 - Cybersecurity Policy
COM 510 - Cyber Threat Intelligence
COM 515 - Cybersecurity Architecture
COM 520 - Fundamental Security Management and Governance
COM 600 - Applied Cryptography
COM 605 - Network and Infrastructure Security
COM 610 - Software and Application Security
COM 615 - Cybersecurity Research Methods

B. Core Electives (6 CH). Select two of the following four courses:

COM 517 - Cloud Security
COM 518 - Mobile Security
COM 519 - Wireless Security
COM 620 - Industrial Control Systems Security

C. Research and Master's Thesis (3 CH)

COM 690 - Master's Thesis



5.10 MASTER OF SCIENCE IN HUMAN NUTRITION

The Master's Degree Course in Human Nutrition has a marked multidisciplinary connotation that, in addition to the physiological and biochemical processes of nutrition, the role of nutrition in preventing disease and maintaining good health as well as changes and needs in physiological and pathological conditions, aims to impart to students in-depth knowledge of regulatory aspects, from health protection to food safety, and economic elements in the business and quality context of the agri-food chain.

The course aims to deepen the essential subjects and develop the various application skills to forge a professional figure, particularly in demand in the world of work. In light of the importance of the graduate's role in Nutrition, the Human Nutrition Curriculum is devoted to the training of a professional figure equipped with in-depth knowledge of the influence of nutrition on the state of health and well-being and the prevention of diseases, e.g., metabolic or neurodegenerative, both of individuals and populations at risk for particular physiological conditions, such as pregnancy, lactation, growth, aging, senescence, and sports activity.

5.10.1 Educational Objectives and Methodology

The Master's Degree in Human Nutrition is designed to impart advanced knowledge and skills in the field of nutrition and individual and community health, adopting a multidisciplinary and integrated approach. This approach is practical in equipping its students with the necessary skills to succeed in the workforce and various professions.

The course's specific training objectives are intended to train a specialized professional capable of critically analyzing and solving problems related to human nutrition, the quality and safety of foods, food supplements, and nutraceuticals, their composition, the effects of consumption, techniques, and regulations of production, and their dissemination in the market.

To achieve these objectives, integrated and transversal teachings about the three different areas enumerated below are included in the educational pathway of the Master of Science in Human Nutrition:

1. Area of Human Nutrition

For this area, the planned teachings aim to transfer advanced technical and scientific knowledge to students to:

- assess situations that limit food intake for optimal nutrition (e.g., food intolerances and inflammatory reactions, etc.);
- assess the sphere of eating disorders, highlighting their causes on multiple levels (e.g., endocrinological) and understanding their mechanisms of regulation and alteration of metabolism;
- examine from a preventive perspective the issue of nutrition concerning populations of individuals;
- assessing the nutritional status and requirements of individuals and different populations, also with various ages and body conditions, as well as the evaluation of the metabolic effects of the most popular low-calorie diets;
- understand and evaluate the action and interaction of drugs with nutrients, the action of dietary supplements and nutraceuticals, endocrine regulation of metabolism, and the impact of malnutrition-related diseases.

2. Biomedical Area

For this area, the planned teachings aim to transfer advanced technical and scientific knowledge to students to:

- understand and evaluate the molecular mechanisms underlying metabolism;
- understand and evaluate the biochemical effects of dietary introduced nutrients on organs and tissues;
- understand and evaluate the effects of nutrients on physiological and pathological processes affecting the whole organism;
- understand and evaluate the role of microorganisms, such as yeasts and bacteria, in physiological and pathological processes in the human organism.

3. Area of Economics, Technology, and Agribusiness Management

For this area, the planned teachings aim to impart advanced technical and scientific knowledge to students to:

- understand and evaluate the composition of food, as well as the most advanced techniques for food processing and preservation, in addition to the chemical transformation events induced by its cooking;



- understand the role of input processing in preserving the functionality and properties of food;
- understand the essential scope of the right to health and the right to food safety and quality of life of the individual;
- thoroughly understand the regulations, national and European-based, of food production for consumption and know the obligations to be met in the exercise of one's profession;
- acquire knowledge in different fields related to food safety and food security issues.

The Internship and Master's Thesis, an integral part of the training, strictly aim to characterize the outgoing students' experiences. Teaching activities are delivered online through a dedicated platform within STU's technological infrastructure, while internship activities are conducted in person.

5.10.2 Career Opportunities

Graduates of the Master's degree in Human Nutrition possess a versatile skill set that opens doors to various career paths. They can find employment in food and human nutrition and the broader Life Sciences (biology) field.

In particular, they constitute employment outlets for the graduate in Human Nutrition Sciences:

- the practice of the freelance profession of Nutritional Biologist, subject to passing the state examination to be taken in the country where one wishes to practice;
- the exercise of activities within professional and business structures of the sectors of nutrition, nutraceuticals, food production, pharmaceuticals, and in laboratories of control and experimentation of food technologies;
- the exercise of activities in the design, development, and enhancement of food products (functional and traditional), as well as the management of certification systems;
- access to work activities in the public sector, such as designing health, national, and regional programs;
- the performance of activities within the school, corporate, hospital, nosocomial, social welfare, and sports group catering enterprises;
- the performance of training, education, and dissemination activities in the field of food quality and safety, as well as scientific information;
- Continue studies in paths such as Doctoral Programs or Graduate Schools.

5.10.3 Curricular Program (54 CH)

All students must complete 54 Credit Hours for the MS in Human Nutrition, including Credit Hours for the Master's Thesis.

A. Core Curriculum (51 CH)

- ECO 510 - Consumer economics and law: legal and economic rules in nutrition
- NUT 510 - Nutrition at the metabolic level: biochemical structures, reactions, and regulation (5 CH)
- NUT 520 - Food-level nutrition: production technologies and quality management (5 CH)
- NUT 530 - Organism-level nutrition: tissues, organs, and functions (5 CH)
- NUT 540 - Food intolerances, immunity, and drugs
- NUT 560 - Nutrition and microorganisms: infections and fermentations (4 CH)
- NUT 580 - Principles of Nutraceuticals
- NUT 600 - Methods of nutritional analysis (4 CH)
- NUT 610 - Eating Behavior Disorders and Hormonal Control
- NUT 620 - Epidemiology and genetics of nutrition (4 CH)
- NUT 625 - Metabolic syndrome and gut diseases
- NUT 630 - Nutrition and health status: traditional and innovative nutritional models
- NUT 635 - Lifestyles and nutrition at different ages of life
- NUT 640 - Lifestyles and nutrition for the prevention of chronic diseases

B. Research and Master's Thesis (3 CH)

- NUT 690 - Master's Thesis



5.11 MASTER OF SCIENCE IN NURSING

The Master's Degree in Nursing aims to train health professionals who can express advanced nursing, educational, and preventive skills in response to priority problems of population health and quality of services.

Our program promotes an integrated approach to addressing the organizational and managerial challenges of the health professions. This comprehensive approach respects each individual's unique competencies, ensuring a well-rounded mastery of health management techniques and procedures. The acquired methodological knowledge enables them to intervene in the training and research processes peculiar to the fields above. Indeed, graduates will be healthcare professionals capable of designing and managing innovative interventions aimed at continuously improving their clinical practice, utilizing the most up-to-date methodologies in management, technology, pedagogy, and the application of research evidence.

They will possess an educational background that enables them to assume professional leadership and advisory roles in contexts where the health professions are practiced. They will, therefore, be able to perform teaching, mentoring, instructional design, coordination, and organizational leadership functions.

5.11.1 Educational Objectives and Methodology

The Master of Science in Nursing aims to train graduates with the knowledge and skills necessary for the organizational management of nursing care staff. To this end, the proposed educational offerings enable students to acquire the essential managerial, interpersonal, and teaching skills, as well as scientific, technical, and ethical knowledge.

Master of Science in Nursing graduates possess the following skills:

- Manage human and technological resources to organize health services; demonstrate skills in health economics and business organization.
- Verify in various health care settings the effectiveness of planned interventions in the specific areas of health care organization and employ the methods and tools of research in the area of health service organization.
- Design and implement systems for processing scientific data, managing it, and using it in various application contexts.
- Plan, implement, and verify training interventions for refresher and continuing education afferent to the relevant health facilities in essential, complementary, and continuing education, teaching, and coordination skills for the specific professional figure.

5.11.2 Career Opportunities

The Master of Science in Nursing degree provides students with advanced training to assume roles of responsibility in care, management, training, and research processes within one of the fields relevant to the health professions.

One of the unique benefits of the Master of Science in Nursing degree is the pathway it provides to doctoral schools. These schools are designed to prepare students for research in various fields, including healthcare, economics, and anthropology. This further exploration of care, in synergy with medical, financial, and psychosocial components, is a valuable opportunity for those passionate about advancing the field.

5.11.3 Curricular Program (45 CH)

A. Core Curriculum (42 CH)

- NUR 510 - Human Sciences (4 CH)
- NUR 520 - Management I (5 CH)
- NUR 530 - Management II (4 CH)
- NUR 560 - Clinical Pathways I (6 CH)
- NUR 570 - Clinical Pathways II (6 CH)
- NUR 580 - Didactic Training I (4 CH)
- NUR 590 - Didactic Training II (4 CH)
- NUR 650 - Research I - Implementation
- NUR 655 - Research II - Developing the Research
- PSY 470 - Efficacy Communication and Public Speaking in the Health Professions

B. Master Thesis (3 CH)

- NUR 690 - Master's Thesis



5.12 MASTER OF SCIENCE IN PUBLIC HEALTH NURSING

The Master of Science in Public Health Nursing prepares students for leadership positions as public health nurses in community health organizations, public health departments, visiting nurses, home care, and federal agencies. Students learn to monitor and study health trends, identify health risk factors, develop public and community health programs, and educate patients and communities on health issues that can improve health and save lives, with a focus on underserved and marginalized populations.

The Master's program aims to develop advanced nursing skills to meet the needs of individual citizens and the communities in which they teach, work, and receive welfare. It is necessary to manage, plan, implement, monitor, and evaluate preventive, global, continuous, timely, and high-quality assistance strategies in response to actual or potential health problems.

5.12.1 Educational Objectives and Methodology

The training objectives of this Master's program are to develop activities related to the design, implementation, and evaluation of prevention and health promotion interventions; personal, family, and caregiver care; Educational, training, and counseling interventions; knowing how to conduct epidemiological and multidimensional survey in communities and families; and knowing how to analyze the organization of groups and associations.

The methodological approach is oriented toward education to prioritize health problems, derived from the observation that the educational system is one of the leading health service and policy support systems. It will be dynamically oriented toward priority health problems related to preventive, academic, and care strategies.

5.12.2 Career Opportunities

The areas where the Public Health Nurse works in a dependent or freelance capacity are:

Preventive medicine centers, physician-associated practices, nursing outpatient clinics, hospital services, such as nursing services management, district services, home care, disability office management, etc., support centers for self-help groups, immigrant centers, prisons, sports centers, educational facilities, and Workplaces (Industries, banks, etc.).

5.12.3 Curricular Program (54 CH)

All students must complete 54 Credit Hours for the MS in Public Health Nursing.

A. Core Curriculum (51 CH)

- NPH 560 - Public Health Nursing I (6 CH)
- NPH 570 - Public Health Nursing II (6 CH)
- NPH 590 - Nutrition and Public Health
- NPH 610 - Health Emergency and Preparedness
- NPH 620 - Global Public Health
- NPH 650 - Health Research Methods
- NPH 655 - Research - Developing the Research
- NUR 510 - Human Sciences (4 CH)
- NUR 520 - Management I (5 CH)
- NUR 530 - Management II (4 CH)
- NUR 580 - Didactic Training I (4 CH)
- NUR 590 - Didactic Training II (4 CH)
- PSY 470 - Efficacy Communication and Public Speaking in the Health Professions

B. Master Thesis (3 CH)

- NPH 690 - Master's Thesis



SECTION 6 - CERTIFICATE PROGRAMS

6.1 GENERAL INFORMATION

St. Thomas University offers a diverse range of Certificate Programs designed to support professional growth, strengthen job-specific competencies, and cultivate valuable transferable skills such as critical thinking, adaptability, and informed decision-making.

These programs are ideal for individuals seeking:

- Acquire or sharpen specialized skills in targeted fields
- Enhance their qualifications for career advancement
- Transition into new professional roles
- Prepare for entry into undergraduate or graduate study

STU's certificate programs are intentionally structured to meet the needs of both traditional and non-traditional learners through accessible, time-efficient, and cost-effective learning experiences. Whether pursued as stand-alone credentials or stepping stones toward academic degrees, these certificates are rooted in practical outcomes and current industry expectations.

6.2 KEY BENEFITS OF STU CERTIFICATE PROGRAMS

- **Focused Skill Development:** Concentrated training in specific areas aligned with industry demands.
- **Career Advancement:** Credentialed recognition of your knowledge and commitment to ongoing professional development.
- **Flexible Learning:** Designed for working professionals, courses are delivered online with self-paced components.
- **Accessible and Affordable:** Certificate programs are a lower-cost, lower-time investment than full-degree programs.
- **Industry Recognition:** Many programs are recognized or endorsed by professional associations.
- **Relevant and Current:** Content is regularly updated to reflect the latest trends, technologies, and standards.
- **Time-Efficient:** Most certificate programs can be completed quickly, enabling fast application to real-world contexts.

6.3 CERTIFICATE PROGRAM TYPES

STU offers three distinct types of certificate programs to accommodate different academic and career goals:

- **Undergraduate Certificate Programs**
Designed for students preparing to enter a university degree program. These programs consist of university-level coursework (up to 12 credit hours), which may be applied toward select degree programs at STU.
- **Graduate Certificate Programs**
Intended for students seeking admission to graduate studies. These programs consist of university-level coursework (up to 12 credit hours) that may be applied toward a master's program at STU.

6.4 REQUIREMENTS FOR ADMISSIONS

1. All students who wish to enroll in Certificate Programs whose native language is not English must demonstrate proficiency in the English language.
2. The following qualifications are also required:
 - Undergraduate Certificate Programs: A high school diploma (or equivalent).
 - Graduate Certificate Programs: Bachelor's degree (or equivalent).

Suppose the secondary College diploma, Bachelor's degree, or Master's degree is not earned in the United States. In that case, it is required that the degree submitted allows for university enrollment in the applicant's country of residence.

6.5 EDUCATIONAL METHODOLOGY

The course is conducted online. Students and STU interact through STU's e-learning platforms. Upon admission to the university, students receive a personal STU e-mail address that serves as their primary link to the university and their program of study.



6.6 CERTIFICATION

A certificate attesting to the successful completion of the certificate programs is awarded at the end of the program.



SECTION 7 - ADMISSION PROCEDURES

7.1 APPLICATION AND ADMISSION

St. Thomas University maintains an **open admissions policy**, welcoming applicants from diverse academic, professional, and cultural backgrounds.

7.2 MINIMUM PROGRAM ADMISSION REQUIREMENTS

A. Academic Credentials

- **Undergraduate Programs:** Applicants must have a **Secondary College diploma** (or equivalent)
- **Graduate Programs:** Applicants must possess a **Bachelor's degree** (or equivalent)

If any credential is earned outside the United States, it must be valid for **university admission in the applicant's home country**.

B. English Language Proficiency Applicants whose native language is not English must demonstrate proficiency through one of the following:

1. Attending an institution where **English was the primary language of instruction** for at least 75% of courses
2. Submitting scores from one of the following exams:
 - TOEFL®: Passing score of 70 (B2)
 - TOEIC®: Passing score of 650 (B2)
 - IELTS®: Passing score of 6.5 (B2)
 - Cambridge English: score of 170 (B2)
 - Duolingo Certificate: score of 100 (B2)
 - STU's Certificate in Proficiency in Academic English

International Baccalaureate (IB) Recognition STU considers IB Diploma holders for advanced standing, granting up to **30 credits** based on **Higher-Level (HL)** coursework with a minimum grade of 3.0 subject to evaluation by the Registrar and College Dean.

7.3 ENROLLMENT PROCESS

Applicants must submit the following:

A. Completed Application Form Submit electronically to: admissions@stthomasuniversity.org

B. Official Transcripts Submit transcripts from all secondary and post-secondary institutions.

- **Non-U.S. transcripts** require a credential evaluation by a recognized service (IEE, SpanTran, WES, or other AACRAO-approved organizations)
- Evaluations must include:
 - Course-by-course analysis
 - GPA based on U.S. standards
 - U.S. equivalency of degree
 - Original transcripts attached
 - Confirmation of institutional accreditation

C. Valid Government-Issued ID

Submission Instructions email application materials, then mail originals to:

> **St. Thomas University – Admissions Office** > 15720 Brixham Hill Avenue, Suite 300 > Charlotte, North Carolina 28277 > USA

All documents must be **in English**. Any documents not in English must be accompanied by:

- **Certified English translation**
- **Apostille issued by the U.S. Consulate**

⚠ *Providing incomplete, false, or misleading information is grounds for immediate dismissal.*

7.4 CREDIT RECOGNITION

Students may request credit for prior academic or professional experience. To do so, submit a completed **Credit Hour Recognition Form**, accompanied by supporting documentation.



7.5 ADMISSION STATUSES

STU recognizes the following admission categories:

- **Admitted** – Student has submitted all required documents and meets all admissions criteria
- **Provisional** – Student may begin coursework (maximum of three courses) while awaiting full documentation or final admission decision
- **Denied** – Student does not meet institutional standards or has violated admission policy.



SECTION 8 - ACADEMIC POLICIES

8.1 ATTENDANCE POLICY

Academic success at St. Thomas University relies on active collaboration between faculty and students. Participation in lessons and discussions is essential, and students are encouraged to engage their tutors for guidance as needed.

8.1.1 Good Standing

- **Undergraduates:** Cumulative GPA of 2.0 or higher
- **Graduates:** Cumulative GPA of 3.0 or higher. Students transferring in are considered initially in Good Standing, regardless of prior GPA.

8.1.2 Disqualified for Verification

Students admitted provisionally must submit required documentation before enrolling in a fourth course or changing programs.

8.1.3 Academic Probation

Students falling below minimum GPA thresholds after three courses:

- **Undergraduates:** below 2.0
- **Graduates:** below 3.0
- **Students** may take three additional courses within six months to improve GPA. Lack of progress may result in dismissal.

8.1.4 Academic Suspension

Occurs if:

- Students fail to raise GPA above minimum after probation – 2.0 undergraduates. 3.0 graduates.
- Students fail the same required course twice

Suspended students must pause enrollment for six months and may petition for reinstatement. If readmitted, students must meet current program requirements and maintain a probationary GPA:

- **2.5 minimum (undergraduates)**
- **3.0 minimum (graduates)**

Suspension and reinstatement dates are recorded on the transcript.

8.1.5 Academic Suspension Review

The Chief Academic Officer may recommend an extension of probation for students with clear academic potential.

8.1.6 Disciplinary Suspension

Suspension may result from violations of the Student Code of Conduct. Disciplinary status is noted on official records.

8.1.7 Appeal of Academic Suspension

Students may appeal by submitting an **Academic Suspension Appeal Form** to the Academic Standards Committee within one week of notification.

8.1.8 Program Completion Deadlines

Program	Time Limit
Bachelors	7 years
Masters	5 years

Deadlines are calculated from the student's first documented attendance.

8.1.9 Deactivation of Programs

If a degree program is deactivated, enrolled students are guaranteed the opportunity to complete their studies or may opt to transfer into another active program.



8.2 COURSES POLICY

8.2.1 Course Prerequisite Waiver

Students may enroll in a course without the stated prerequisite **only with faculty permission**. Without approved waiver documentation, the Registrar will remove students lacking prerequisites.

8.2.2 Major Declaration

Majors may be selected at admission or later via the **Declaration and Change of Major form**. Students must declare a major by the time they complete **60 credits**.

8.2.3 Program Changes

Students must consult their academic advisor, meet any new program's admission criteria, and complete a new **enrollment agreement**. Previously completed applicable coursework will be recognized when appropriate.

8.2.4 Repeating a Course

- Students may retake a failed course; the original "F" remains on the transcript, but only the new passing grade counts toward GPA.
- Repeating a passed course requires **Academic Standards Committee approval** and may only be done once.
- Courses taken elsewhere do not replace STU grades.
- A **Repeat Course Request Form** must be filed with the Registrar for all repeated courses.

8.2.5 Incomplete Courses

Students may petition for a temporary "I" (Incomplete) grade if unable to complete course requirements for justifiable reasons.

- Petition must be submitted **at least 7 days** before the course end date
- Incomplete work must be completed within **1 month** unless extended by the instructor and Dean
- If not completed, the "I" converts to an "F"
- Students must submit a **Course Completion Agreement Form**, signed by both student and instructor

8.2.6 Independent Study

Independent Study is a **faculty-mentored academic project** and not a substitute for regular coursework.

Eligibility Criteria:

- GPA of 3.0 or higher
- Minimum 30 STU credits completed
- Departmental approvals (requirements may vary)

Proposal Requirements:

- Title and topic definition
- Timeline and learning outcomes
- Description of final deliverable (paper, project, performance)
- Justification of academic merit and materials needed

Proposals must be:

1. Approved by the supervising professor
2. Reviewed and authorized by the College Dean

Credit Options: 1–3 credit hours, to be specified in the proposal. **Instructor Contact:** Hours determined by the supervising professor.

8.3 TRANSCRIPT AND GRADING POLICY

8.3.1 Official Transcript

At the end of each course, faculty must submit final grades within **seven days**. Students in good standing may view **official grade reports** on the student portal. These include course title, credit hours, and the assigned grade.

Transcripts or grade reports will be **withheld for students with unpaid tuition or fees**.



8.3.2 Academic Standing and Grading Scale

St. Thomas University uses a **4.00 GPA scale**. Letter grades are assigned based on a **100-point system** and converted accordingly:

Points	Grade	GPA	Descriptor
93–100	A	4.00	Outstanding Achievement
90–92	A–	3.67	
86–89	B+	3.33	
82–85	B	3.00	Excellent
79–81	B–	2.67	
76–78	C+	2.33	
72–75	C	2.00	Average
69–71	C–	1.67	
66–68	D+	1.33	
63–65	D	1.00	Acceptable
60–62	D–	0.67	
0–59	F	0.00	
			Failure

Minimum grades:

- D– is the minimum passing mark
- Undergraduate students must maintain a **2.5 GPA**
- Graduate students must maintain a **3.0 GPA**

Non-GPA Grades:

- I = Incomplete
- P = Pass
- W = Withdrawn
- NC = No Credit

“I” grades must be resolved within one month; unresolved “I” grades are converted to “F”.

8.3.3 Grade Point Average (GPA)

GPA Calculation = Total Grade Points ÷ Total GPA Credit Hours

Example:

Course	CH	Grade	Value	Points
A	3	A	4.00	12
B	3	B	3.00	9
B	3	B	3.00	9
C	4	C	2.00	8

Total: 13 CH × 38 Grade Points = **GPA: 2.923**

Courses with “F” grades **do not count toward degree credit** but are **included in GPA calculations**.

8.3.4 Grade & Transcript Reporting

- Grades are posted online to students in good financial standing
- Transcripts display grades, credits earned, and course dates
- Repeated courses: only the most recent grade factors into GPA, but both grades remain on the transcript
- Transcript requests require:
 - Full payment of all tuition and fees
 - Signed written request per FERPA regulations
 - Online submission via the University website

STU cannot release transcripts from other institutions. All records are securely stored and maintained in compliance with local, state, and federal regulations.



8.3.5 Disputing Grades

- Students may initiate a grade dispute within **one week** of grade posting
- Contact the **Dean of the College** to schedule a review with the faculty member
- Faculty member's grade decision is **final**
- No appeal may be submitted outside the University
- Late work is not accepted once a course has concluded

8.3.6 Application for Graduation and Degree Conferral

- Graduation applications must be submitted via the student portal
- If unavailable, students may contact their Academic Representative
- Degrees will be issued after confirmation of all financial and academic obligations
- A transcript will accompany the diploma and be mailed to the student

8.3.7 Graduation Ceremony Participation

Eligible students may participate in in-person or online graduation ceremonies after fulfilling all graduation requirements.

- Ceremonies are hosted at **designated learning centers** and announced via the STU website
- **Cap and gown** are required for in-person participation
- Due to STU's flexible, global learning model, online ceremonies are also available

8.3.8 Diploma Registration

Diplomas are recorded on each student's transcript monthly. Completion is confirmed when all **academic requirements and credits are posted** to the official record. The diploma reflects the **official graduation date**, which appears on the last day of the month in which all program requirements were met.

Diplomas are ordered and mailed approximately **two weeks after graduation**—provided all tuition and fees have been paid. Students not eligible for graduation are contacted by their **Academic Representative** with next steps for completion

8.3.9 Graduation with Honors

Students earning a **final GPA of 3.85 or higher** graduate with honors. This distinction is noted on both the **diploma and permanent transcript**.

8.3.10 Honorary Degrees

Honorary degrees are conferred to recognize **exceptional service** to STU's mission and contributions to academic, cultural, or humanitarian advancement.

8.3.11 Records Retention and Disposition

STU follows established retention schedules for student records in compliance with state and federal regulations.

- **Permanent records** (transcripts) are retained indefinitely.
- **Admissions materials**, test scores, evaluations, and correspondence are retained for **five years** after last date of attendance.
- Transcripts or documents from other institutions are **not reproduced** by STU and must be obtained directly from the original issuer.

All student records are maintained securely in **physical, digital, and imaging system formats**.

8.4 INTERNSHIP POLICIES

Internships provide essential real-world application of theory, technical training, and professional conduct. STU may approve internship placements worldwide if sites meet the University's educational and supervisory criteria. Internships include:

- Tutorial and orientation sessions
- Simulation exercises in virtual labs
- Field-based supervised practice
- Reflective sessions and written assignments



8.4.1 Clinical Training

Especially in healthcare-related fields, clinical training supports students in:

- Integrating theory with professional practice
- Building identity and confidence as healthcare providers
- Preparing for transition into employment settings

Experiences are coordinated with **multidisciplinary teams** and include close collaboration with nursing and nutrition professionals.

8.4.2 Internship Policy for College of Health Sciences Students

Internships are **mandatory** for Health Sciences degree completion. Key provisions include:

1. Health screening and psychophysical clearance required
2. Additional medical reviews may be mandated during placement
3. Assignment is based on student preparation and learning outcomes
4. Sites must be affiliated with STU (public or private)
5. Students are responsible for **proposing sites**, subject to approval
6. Full attendance is required; absences must be made up
7. Completion is contingent on achieving **all learning objectives** within the timeframe

8.4.3 Student Internship Code of Conduct

During internship placement, students commit to:

- **Following tutor instructions** precisely
- **Respecting patients' rights, cultures, and values**
- Maintaining **privacy and confidentiality**
- Clearly identifying themselves as students
- Operating **within their scope of training**
- Preparing diligently and ensuring safety
- Reporting errors for learning—not concealment
- Refraining from solicitation of employment
- Promoting the **professional image** of nursing
- Limiting cellphone use and **avoiding social media disclosures**
- **Protecting institutional and patient data** from photography or sharing
- Reporting all injuries and being accountable for university property

8.4.4 Temporary Suspension from Internship

Students may be temporarily suspended for the following reasons:

- Safety concerns or lack of preparation
- Repeated unexcused absences
- Unethical or unprofessional conduct
- Pregnancy or health conditions impairing participation
- Medical ineligibility

Suspensions are initiated by the Director of Professional Education and reviewed by the Dean of Health Studies, who meets with the student to discuss the decision. Readmission is determined by academic leadership.

8.4.5 Permanent Suspension

If underlying issues are unresolved, the **Dean**, upon recommendation, may propose **permanent suspension** to the **Academic Standards Committee**. This results in withdrawal from the internship and the respective academic program.

8.4.6 Disciplinary Appeals

Students may appeal a temporary or permanent suspension in writing to the **President of STU** within **15 days**. The President's decision is **final and binding**.



SECTION 9 - TUITION AND FEES

9.1 TUITION AND FEES POLICY

Aligned with its mission to expand access to quality education, St. Thomas University offers **affordable tuition**, especially for **international students from low-income communities**. This pricing structure reflects STU's commitment to equity and opportunity in global education.

Key policy points:

1. Tuition and fees are reviewed and set **annually** by the Board of Trustees
2. Students must pay fees on schedule to remain **in good academic standing**
3. Payment options include:
 - o **Program-based:** lock in annual rate through graduation
 - o **Course-based:** pay per course with adjustments each academic year
4. Annual increases follow **North Carolina higher education trends**
5. Students must cover **all banking and transaction fees**
6. STU is not liable for **additional charges related to payment methods**
7. **Automatic payments** are available upon request
8. **Administrative fees** are due at enrollment
9. If someone other than the student is responsible for payments, a **Financial Responsibility Form** must be submitted
10. **Late payments** may result in registration cancellation and reactivation fees

For questions, please contact bursar@stthomasuniversity.org

9.2 TUITION AND FEES PRICE

The following reflects STU's **online virtual campus** rates:

9.2.1 Tuition Price

Program	Credit (CH)	Hour	Per Course	Annual (30 CH)	Full Program
Undergraduate Certificate	-		-	-	\$1,450
Graduate Certificate	-		-	-	\$2,150
Undergraduate	\$150		\$450	\$4,500	\$18,000 (120 CH)
Undergraduate w/ Internship	\$200		\$600	\$6,000	\$24,000 (120 CH)
Graduate (Master's)	\$200		\$600	-	\$7,200-\$12,000 (36-60 CH)

9.2.2 Administrative and Resources Fees

Program	Fee
Certificate	\$180 (flat)
Undergraduate	\$300 annually / \$1,200 total
Graduate (Master's)	\$500 total

9.3 PAYMENT METHOD

The student can make payments by credit or debit card or by bank transfer in the manner specified below:

1. **By credit or debit card:** if the student has completed the debit authorization form, the tuition and mandatory fees will be charged to that card. Payments must be made through our website using the Secure Online Payment option.
2. **By direct bank transfer or wire.** The bank document must contain the student's last and first name, date of birth, and the course in which the student is enrolled.
 - A) If made in the **UNITED STATES and CANADA**, enter the following information:

Bank:	WISE Bank - 30 W. 26 th Street, Sixth Floor - New York, NY 10010
Beneficiary:	ST. THOMAS GLOBAL AMERICAN LEARNING
Routing Number ACH e wire:	026073150
Account Number:	822000414292



- B) If made from countries **OUTSIDE the U.S. and Canada**, enter the following information:
- Bank:** WISE Bank - 30 W. 26th Street, Sixth Floor - New York, NY 10010
Beneficiary: ST. THOMAS GLOBAL AMERICAN LEARNING
Routing Number: 026073150
BIC SWIFT: CMFGUS33
Account Number: 822000414292
- C) If made from countries in the **European Union, or SEPA**, enter the following information:
- Bank:** WISE Bank - Rue du Trone, 100, 3rd floor - Brussels 1050, Belgium
Beneficiary: ST. THOMAS GLOBAL AMERICAN LEARNING
IBAN: BE67 9673 2554 4187
BIC: TRWIBEB1XXX

⚠ Transfers from the following regions are not accepted and will be returned: **Africa:** Burundi, Central African Republic, Chad, Democratic Republic of Congo, Eritrea, Guinea-Bissau, Libya, Somalia, South Sudan, Sudan. **Americas:** Cuba, Venezuela. **Asia:** Democratic People's Republic of Korea (North Korea). **Europe:** Belarus, Crimea, Russian Federation, Serbia. **Middle East** - Afghanistan, Iran, Iraq, Syria, Yemen.

After sending payment, email proof to bursar@stthomasuniversity.org

9.4 CANCELLATION AND REFUND POLICY

9.4.1 Withdrawal Process

- Submit formal **written notice** to both the President's Office and Registrar
- The President must approve withdrawals before becoming official
- Non-attendance or stopped payments **do not qualify as withdrawals**.

9.4.2 Refund Guidelines

Timing	Refund
Before 1 st week	100%
During 1 st week	50%
During 2 nd week	30%
After 2 nd week	0%

- Refunds apply to **tuition only**
- **Admin and Resources Fees are non-refundable** (unless prohibited by law)
- Students re-enrolling within 180 days **retain access to electronic course materials**
- Bank charges are the **student's responsibility**
- Refunds **do not cover bank fees**



SECTION 10 - STUDENT SERVICES

St. Thomas University offers a comprehensive suite of student services that align with its educational mission: to foster knowledge, skills, and competencies that define the modern global learner. Services are designed to support academic success, professional growth, and personal development at every stage of the student journey.

10.1 COUNSELING AND GUIDANCE

Choosing an academic path is one of the most important decisions a student makes. STU recognizes the impact of educational alignment on student retention and success. Through its counseling services:

- Faculty and staff provide **personalized academic guidance**
- Students receive support in selecting degree programs aligned with their goals
- Educational pathways are crafted to reflect real-world labor market needs and emerging trends
- All STU staff are committed to respectful, professional, and timely communication

10.2 ADVISING AND MENTORSHIP

STU supports students across their entire academic lifecycle with:

- **Degree orientation and planning assistance**
- **Study strategies and organizational support**
- **Help navigate administrative processes**
- **Thesis development and mentoring**
- **Study group formation and teaching workshops**

Each student is assigned a faculty advisor upon registration. Advising is offered:

- **Individually** via email and virtual appointments
- **Collectively** through virtual classrooms and student forums

Tutoring is structured across four areas:

1. Academic guidance
2. Performance monitoring
3. Personalized learning pathways
4. Peer collaboration and coordination

STU's e-learning environment promotes active participation and collaboration using:

- **Interactive Forums**
- **Real-time Classrooms**
- **3D Virtual Learning Spaces**

All advising records are kept **strictly confidential** in accordance with STU's privacy policy.

10.3 HELP DESK

STU's Help Desk provides prompt, clear support:

- **Phone and email assistance** during posted office hours
- Clarification on technical, academic, and operational questions

10.4 STUDENT SECRETARIAT

The Secretariat manages student documentation and official services, including:

- Enrollment and course registration guidance
- Credit recognition assistance
- Issuance of certificates (enrollment, attendance, graduation)

Students may contact the Secretariat by **phone or email**.

10.5 ACCESSIBILITY FOR SPECIAL-NEEDS STUDENTS

STU is committed to creating an inclusive, accessible academic environment:

- Platforms comply with **W3C international accessibility standards**
- Visually impaired students may use screen magnification tools
- Extended exam time is granted to students with **certified learning disabilities**, at no extra cost

10.6 SERVICE QUALITY AND STUDENT PARTICIPATION

STU continuously evaluates service quality through:



- Student satisfaction surveys
- Assessment of complaints or procedural inconsistencies

Quality oversight is led by the **Self-Evaluation Committee**, which includes student representatives. Student involvement is formally integrated through participation in:

- **Academic Senate** (2 student seats)
- **Academic Standards Committee** (2 student seats)
- **Student Government**, which advocates for community well-being and represents the student body to STU leadership

10.7 ONLINE COURSE DELIVERY

All instruction is delivered through STU's integrated **e-learning platforms**, supported by:

- Assigned **university email addresses** for official communication
- Access to **course materials, video lectures, forums, and library resources**
- Real-time interactions through **video conferencing and virtual seminars**

Students admitted to undergraduate or graduate degree programs can begin their studies within **five business days** of receiving their acceptance confirmation.

10.8 STUDENT SUPPORT PROGRAMS

St. Thomas University is committed to fostering an inclusive, responsive, and empowering academic environment. To ensure students succeed both academically and personally, STU offers a comprehensive set of **student support services**, accessible immediately upon enrollment.

Support services include:

- **Faculty Mentoring** Faculty members serve as **learning mentors and facilitators**, guiding students through coursework and academic growth. This model emphasizes collaboration and personal development over traditional one-way instruction. Referrals to internal and external support services are provided as needed.
- **Technical Assistance** A dedicated help team supports students with technical issues related to the **Learning Management System (LMS)** and **Student Information System (SIS)**. Assistance is provided promptly to minimize disruption and keep learners focused.
- **Library Services** STU's online library offers:
 - **Course-specific research guides**
 - **Access to librarians for virtual assistance**
 - A curated digital repository of academic resources

Program Effectiveness and Continuous Improvement

St. Thomas University embraces a culture of **feedback-informed growth**. Stakeholder input is crucial for refining services and meeting the needs of students. STU evaluates support programs through the following mechanisms:

- **Course & Instructor Surveys**
 - Distributed at the end of each course via LMS
 - Gauge content quality, teaching effectiveness, and overall satisfaction
- **Enrollment & Advisement Surveys**
 - Offered upon enrollment and annually thereafter
 - Assess experiences with academic advising and administrative support
- **Service Satisfaction Surveys**
 - Offered after technical or administrative support interactions
 - Provide immediate feedback on support responsiveness and quality
- **Graduation Survey**
 - Distributed to students upon program completion
 - Captures feedback on academic experience and readiness for next steps
- **Suggestion & Feedback Portal**
 - A 24/7 web-based form enabling students and stakeholders to share:
 - Suggestions
 - Compliments
 - Concerns or complaints (anonymous or named)

Data Collection & Review: Feedback is compiled by designated support teams and shared with **senior administration** on a monthly or quarterly basis. **Anonymized faculty feedback** is distributed after each course or at set intervals for open-entry programs.



10.9 STUDENT INFORMATION SUPPORT

St. Thomas University is committed to providing students with the resources and tools necessary to succeed in an online learning environment. From technology access to productivity strategies, STU ensures all students are equipped to thrive in virtual classrooms.

10.9.1 Technical Skills and Readiness for Online Success

To be effective in online learning, students should possess basic digital literacy, including:

- **Navigating a web browser**
- Using an **office productivity suite** (e.g., word processor, spreadsheets, presentations)
- Accessing and submitting coursework online
- Managing their time and minimizing distractions

STU provides recommendations for both **software and hardware** to optimize learning. Students are also encouraged to take advantage of online tutorials and how-to videos available through various platforms such as YouTube to reinforce their tech skills.

Key to success: Online learning offers flexibility, but requires **self-motivation, organization, and comfort with digital tools** to maximize the experience.

10.9.2 Technical Requirements for Online Learning at STU

STU's learning platforms are accessible across desktops, laptops, tablets, and mobile devices. However, a **desktop or laptop computer** is strongly recommended for optimal performance and ease of completing assignments.

10.9.2.1 Desktop / Laptop Requirements

- **Operating Systems:**
 - Windows 10 or higher (*preferred*)
 - macOS 10 or higher (*supported*)
- **Web Browser:**
 - Google Chrome
 - Microsoft Edge
- **Productivity Suite:**
 - Microsoft Office 365 or Google Workspace (Docs, Sheets, Slides)
- **Video Player:**
 - Default system player
- **Hardware Requirements:**
 - RAM: Minimum 8 GB (16 GB preferred)
 - Hard Drive: 40 GB minimum
 - Input/Output Devices: Keyboard, mouse, headphones, microphone, speakers, optional printer

10.9.2.2 Tablets and Mobile Devices

While tablets and smartphones can access the learning platform and review content, they are **not recommended** for completing assignments.

- **Operating System:** Android, iOS, or Windows (updated within the past 2 years)
- **Storage:** Minimum 32 GB (64 GB preferred)

These devices are best used as **supplementary tools**, not primary study devices.

10.9.2.3 Internet Connection

Students should have reliable internet with the following specifications:

- **Connection Type:** Wired or wireless
- **Minimum Speed:** Download speed of 200 Mbps
- **Mobile Connectivity:** 4G or higher compatible



SECTION 11 - UNIVERSITY CODE OF CONDUCT

The St. Thomas University Code of Conduct outlines the shared responsibilities, rights, and behavioral expectations of all students, faculty, and staff. Upon enrollment or employment at STU, all members of the community agree to uphold the standards and values reflected in this Code and support the mission of the institution.

11.1 VIOLATIONS OF LAW ON AND OFF CAMPUS

STU maintains a zero-tolerance policy regarding intentional violations of civil or criminal law. Members of the university community are expected to demonstrate personal accountability and uphold ethical conduct both within and beyond academic settings.

11.2 EQUAL OPPORTUNITY AND NONDISCRIMINATION POLICY

St. Thomas University strictly prohibits discrimination in all its forms. The University does not discriminate on the basis of:

- Race
- Color
- Religion
- Gender
- Ethnic or national origin
- Age
- Marital status
- Sexual orientation

This policy applies to all academic programs, admissions processes, student services, financial aid, employment, and university-sponsored activities.

11.3 POLICY ON CIVIC AND PERSONAL VIOLATIONS

STU upholds a respectful, safe, and supportive environment. Disciplinary action may be taken against individuals who engage in the following violations:

11.3.1 Violations Related to Community Safety

- Possession or use of dangerous objects or firearms
- Use of flammable materials or incendiary items
- Theft, loss, or duplication of University keys
- Smoking on campus property
- Disruption of academic or University-sponsored activities
- Tampering with or damaging safety or security equipment
- Initiating false alarms or emergency calls
- Theft or unauthorized borrowing of property

11.3.2 Violations Related to Individual Integrity

- Providing false information
- Academic dishonesty (cheating, plagiarism, fabrication)
- Possession or use of alcohol or illicit drugs on STU premises

11.3.3 Violations Involving the Dignity, Safety, and Welfare of Others

- Stalking or unauthorized surveillance
- Recording or photographing individuals without consent
- Physical or verbal aggression, threats, or force
- Psychological coercion, bullying, or social exclusion

11.4 SEXUAL HARASSMENT POLICY

Definition: Sexual harassment includes any **unwelcome verbal, nonverbal, or physical conduct of a sexual nature** that disrupts educational or professional activities, creates a hostile environment, or undermines personal dignity.

Examples of prohibited conduct include:



- Unwelcome sexual advances or suggestive comments
- Nonconsensual touching, whistling, or leering
- Circulating sexually explicit material
- Inquiries into sexual experiences or orientation
- Using sexual acts as leverage for academic or professional advancement

Cultural Context and Accountability: As a globally diverse institution, STU values cross-cultural understanding. However, **all members must respect STU's conduct policies**, regardless of cultural origin. Cultural context may inform deliberation, but **it does not excuse misconduct**.

Enforcement: Violations are investigated with **strict confidentiality**. Disciplinary action may include, at minimum, **expulsion or contract termination** upon a finding of guilt.

This policy applies equally to all **students, faculty, administrators, and staff**.

11.5 GENERAL STUDENT RIGHTS AND DUTIES

St. Thomas University embraces the principle that students are partners in the academic experience. The University affirms students' rights while upholding their responsibilities as members of the STU learning community.

11.5.1 Student Rights and Duties

Students have the right to:

- A quality education led by expert faculty using advanced teaching methods
- Timely, complete, and accurate information related to University operations and academic programs
- 24/7 access to course materials through the online learning platform
- Use of administrative services during official hours
- Personalized academic support from instructors and tutors
- Technical assistance for course access and participation
- Provide suggestions or complaints to improve services
- Confidentiality and privacy in accordance with relevant laws

The University guarantees:

- Equal access to education for all qualified students
- Support for student development, civic engagement, and cultural autonomy
- No exclusion of students with disabilities who meet admission criteria
- Access to clear, timely academic guidance and communication

Students are expected to:

- Take personal responsibility for academic performance and conduct
- Know and fulfill the requirements of their chosen program
- Understand and comply with all University policies and procedures
- Respect institutional safety, conduct, and academic standards

11.5.2 Student Privacy and FERPA Compliance

St. Thomas University complies with the **Family Educational Rights and Privacy Act (FERPA)**, which provides students the following rights:

- **Inspect and review** their education records within 45 days of a written request
- **Request amendment** of records they believe are inaccurate or violate privacy
- **Control disclosure** of personally identifiable information, except where FERPA permits exceptions
- **Understand disclosure exceptions**, such as access by University officials with legitimate educational interest
- Consent to, or opt out of, the release of **directory information**, defined as:
 - Full name (including maiden/married names)
 - Address, telephone number, email
 - Date/place of birth
 - Major or program of study
 - Enrollment status

Students who do not wish their directory information to be released must opt out via the **Privacy Section** of the enrollment form at www.stthomasuniversity.org.

- File a complaint with the **U.S. Department of Education** regarding any alleged FERPA violation:
> **Family Policy Compliance Office** > U.S. Department of Education > 400 Maryland Avenue SW > Washington, DC 20202-5901



11.6 STU STUDENT COMPLAINTS POLICY

STU encourages a culture of **transparency, fairness, and responsiveness** in addressing student concerns. Complaints are addressed through both informal and formal procedures.

11.6.1 Informal Resolution

Students are urged to resolve concerns directly with the involved party (faculty or staff) before filing a formal complaint.

Steps:

1. Contact the individual involved
2. Describe the issue clearly and respectfully
3. Seek mutual agreement or resolution

If unsatisfied, students may escalate the matter through a formal complaint.

11.6.2 Formal Complaint Submission

If informal resolution is unsuccessful:

1. Access the **STU Complaint Form** via the student portal or request it from Student Services
2. Submit a detailed report including:
 - o Name and contact information
 - o Course or staff member involved
 - o Description of the issue and steps already taken
 - o Supporting documentation (emails, screenshots, etc.)
3. Submit electronically through the portal or designated submission address

11.6.3 Complaint Review Process

1. **Acknowledgment:** Students will receive a written confirmation within **five business days**
2. **Assignment:** The complaint is routed to an appropriate STU official or department
3. **Investigation:** Relevant parties are contacted, and supporting evidence is reviewed
4. **Resolution**

11.6.4 Appeal Process

If a student is dissatisfied with the outcome of a formal complaint, they may file an appeal.

Appeal Steps:

1. Submit a written appeal within **10 business days** of receiving the decision
2. Clearly state the reason, including **new evidence or context** not previously reviewed
3. Appeal is reviewed by an impartial administrator or **Appeals Committee**
4. A final decision is delivered within **15 business days**—this decision is **final**

11.6.5 External Escalation

If not satisfied after STU's internal appeal process, a student may contact:

> **University of North Carolina System Office** > Email: stateauthorization@northcarolina.edu

11.6.6 Confidentiality and Retaliation Protection

- All complaints and appeals are handled with **strict confidentiality** to the extent possible
- **Retaliation** against a student acting in good faith is **strictly prohibited**

11.6.7 Tracking and Follow-Up

All complaints are:

- **Logged and monitored** for timeliness and resolution
- Subject to **periodic follow-up** to ensure satisfaction
- Addressed through procedures that uphold **academic integrity and respect**

11.7 ACADEMIC DISHONESTY

Academic honesty is essential to STU's scholarly community. **Academic dishonesty** includes, but is not limited to:



- **Plagiarism** (including uncredited use of ideas, words, or media)
- **Cheating** or unauthorized assistance during evaluations
- **Tampering with or sabotaging another student's work**
- Submitting work without proper citation
- **Self-plagiarism** (submitting the same work to multiple courses)
- **Data falsification** or fraudulent documentation
- Copyright or **intellectual property violations**

Reporting & Procedure:

- Faculty must report suspected dishonesty to the **Academic Standards Committee**
- An instructor may assign a failing grade for the assignment or course
- The committee may escalate to a **formal hearing**
- Students are entitled to written notice, a hearing, and an appeal
- If academic dishonesty is confirmed and repeated, the student will be **immediately expelled**

The Registrar's Office maintains clear procedures and documentation for resolution and appeals.

11.7.1 Judgment of Academic Infractions

The **Academic Standards Committee**—comprised of the Chief Academic Officer, College Deans, and two Student Government representatives—has authority over academic misconduct cases.

- Students may submit written statements **up to 3 days** before the committee convenes
- Sanctions depend on severity and may range from **failing grades to expulsion**
- A grade of **"F" for dishonesty** cannot be replaced by a course withdrawal
- If repeated, academic dishonesty results in **automatic expulsion**

11.7.2 Sanctions

Depending on the offense, STU may impose:

- Verbal warnings
- Academic suspension
- Expulsion from the program or University
- Termination of enrollment or contract

11.7.3 Disciplinary Appeals

Students may **appeal disciplinary actions** in writing to the President within **15 days** of the decision.

> The President's decision is **final and not subject to further appeal**.



SECTION 12 - FINAL DISPOSITIONS

12.1 REVISION OF THE CATALOG

This catalog is a dynamic document, reviewed and updated **annually** to ensure alignment with institutional goals, regulatory compliance, and academic best practices.

Revisions may be proposed by:

- The University President
- The Academic Senate
- Any designated administrative or academic office

All proposed changes are subject to **approval by the President** and final ratification by the Board of Trustees.



SECTION 13 - GOVERNORS, ADMINISTRATORS, FACULTY, AND EMPLOYEES LIST

13.1 BOARD OF TRUSTEES MEMBERS

Dr. MARGARITA, Marco, Ph.D.
Chairman, Board of Trustees

Dr. DIANO, Vincenzo
Member, Board of Trustees

Dr. DRUMMOND, Marshall, Ed.D.
Member, Board of Trustees

Dr. MARTINONI, Emanuele
Treasurer, Board of Trustees

Dr. MCDONALD, Warren, Ph.D.
Member, Board of Trustees

Dr. POLIDORI, Pietro
Secretary, Board of Trustees

Dr. REIN, Russel Bruce, MBA
Member, Board of Trustees

13.2 OFFICE OF THE PRESIDENT

BEING UPDATED

13.3 OFFICE OF THE FINANCIAL AND HUMAN RESOURCES MANAGEMENT

Dr. MARTINONI, Emanuele
Chief Financial Officer

Dr. BOCCHINO, Paolo
Bursar

13.4 OFFICE OF IT AND MEDIA SERVICES

Dr. CROUSE, Kevin T., CISSP, CISM, CIPP/E, CIPM, D.B.A.
Chief Information Officer

Dr. PASQUETTI, Maurizio
Marketing Coordinator

13.5 OFFICE OF ACADEMIC AFFAIRS

Dr. TAYLOR, Timothy L., MPH, Ph.D.
Chief Academic Officer (Provost)

Dr. PROCOPIO, Arianna
Register

13.5.1 Deans of the University

AKGÜN, Hediye Seval, MD, PhDs, MSc, CPHHA
Dean, College of Health Science

CANCELLI, Paolo, Ph.D.
Associate Dean, School of Humanities

CHEN, Alexander N., MS Rural Sociology, MAG, Ph.D.
Dean, College of Innovation and Intelligence

JACKSON Casanna, MLIS, MSOL
Dean of Students and Library Services

MARGARITA, Marco, MBA
Associate Dean, College of International Business



MELE, Giampiero, Ph.D.
Associate Dean, School of Fine Arts

13.5.2 Faculty Authors

13.5.2.1 College of Innovation and Intelligence

- Dr. ARNESANO, Marco, Ph.D.
- Dr. BOCCI, Edoardo, Ph.D.
- Dr. CATANIA, Davide, Ph.D.
- Dr. CASEY, Michael, MSE, Ph.D.
- Dr. CHEN, Bernard, Ph.D.
- Dr. CIOCCOLANTI, Luca, Ph.D.
- Dr. COMODINI, Fabrizio, Ph.D.
- Dr. CROUSE, Kevin T. Crouse, CISSP, CISM, CIPP/E, CIPM, DBA
- Dr. DONG, Yinlin, MA, Ph.D.
- Dr. FOCACCI, Francesco, Ph.D.
- Dr. GETSON, Nancy Jo, MS
- Dr. MARCHETTI, Barbara, Ph.D.
- Dr. MOGLIE, Matteo, Ph.D.
- Dr. SURACI, Vincenzo, Ph.D.

13.5.2.2 College of Interdisciplinary Studies

- Dr. BASS, James, MA, Ed.D.
- Dr. CANTOIA, Manuela Eliane Anne, Ph.D.
- Dr. CAVALLO, Marco, Ph.D.
- Dr. COURTNEY Walters, Ph.D.
- Dr. COVELLI, Venusia, Ph.D.
- Dr. FARAHI SARABI Farnaz, Ph.D.
- Dr. FEYES, Martino Maria, Ph.D.
- Dr. FIORENTINI, Leonardo, Ph.D.
- Dr. GIULIANI, Arianna, Ph.D.
- Dr. GJERGJI, Iside, Ph.D.
- Dr. GORDON, Cristina, MA, ME, Ph.D.
- Dr. GORDON, Lance, MA
- Dr. LANDONI, Enrico, Ph.D.
- Dr. LIBERATI BUCCIANI, Giovanni, Ph.D.
- Dr. LOMBARDI, Elisabetta, Ph.D.
- Dr. LUCCHINI, Fabio, Ph.D.
- Dr. MAGGI, Daniela, Ph.D.
- Dr. MC VEY, A. William, Ph.D.
- Dr. MINER, Seth, MS
- Dr. PANTAROTTO, Martina, Ph.D.
- Dr. PISHCHIKOVA, Kateryna Ph.D.
- Dr. RAVIOLO, Paolo, Ph.D.
- Dr. RINALDI, Teresa, Ph.D.
- Dr. ROMANO, Maria Antonietta, Ph.D.
- Dr. RONDONOTTO, Marco, Ph.D.
- Dr. ROSSI, Valentina, Ph.D.
- Dr. THARP, Louis B., Ph.D.
- Dr. TIRA, Elisa, Ph.D.
- Dr. TRIACCA, Serena, Ph.D.
- Dr. VICENTINI, Cecilia, Ph.D.
- Dr. WESTERMAN, Leah N., Esquire

13.5.2.3 College of International Business

- Dr. BONOMI Sabrina, Ph.D.
- Dr. CASERIO, Carlo, Ph.D.



- Dr. CIANI SCARNICCI, Manuela, M.S.
- Dr. FEDERICO, Domenica, Ph.D.
- Dr. LAINO, Antonella, M.S.
- Dr. MARGARITA, Matteo, MBA
- Dr. NDHLOVU, Pardon, MBA
- Dr. NOTTE, Antonella, Ph.D.
- Dr. SMITH, Tanya, DBA, CPA
- Dr. THOMAS, William Stewart, PhD, CPA, CGMA
- Dr. VOLONTERIO, Federica,

13.5.2.4 College of Health Sciences

- Dr. BOCCHIO CHIAVETTO, Luisella, Ph.D.
- Dr. IERACI, Alessandro, Ph.D.
- Dr. MEADORS, Allen C., Ph.D., LFACHE
- Dr. RAHMA, Azhar Talal, Ph.D. M.PH, R.Ph.
- Dr. TARDITO, Daniela, Ph.D.
- Dr. TAYLOR, Timothy L., MPH, Ph.D.

13.5.3 Tutors

- Dr. BETTONI, Francesca, M.S.
- Dr. BORGHI, Jacopo, M.S.
- Dr. BOSSINI, Andrea, M.S.
- Dr. CAGELLI, Marzia, B.S.
- Dr. CAIROLI, Irene, M.S.
- Dr. CARBONI Valentina
- Dr. CHIARINI, Francesca, M.S.
- Dr. COLOMBO, Valentina, M.S.
- Dr. FEBBO, Maria, B.S.
- Dr. FRISENDA, Chiara, M.S.
- Dr. FRISULLO, Silvia Giada, B.S.
- Dr. GERTOUX, Giulia, B.S.
- Dr. IOVINE, Francesco, M.S.
- Dr. IULIANO, Simona, M.S.
- Dr. MOLTENI, Martina, M.S.
- Dr. PANI, Luca, B.S.
- Dr. POLLASTRINI, Erika, M.S.
- Dr. RASA Valentina, B.S.
- Dr. ROSSINI, Giulia, B.S.
- Dr. ZANLUNGO, Gabriele, M.S.



SECTION 14 - COURSE CODES AND DESCRIPTIONS

14.1 CREDIT HOURS AND COURSEWORK

- Courses numbered 100 to 499, which provide three credit hours, are developed in about five weeks of work.
- Courses numbered 500 to 900, which provide three credit hours, are developed in about six weeks of work.
- Courses involving fewer or more credit hours are indicated in the individual descriptions.
- Prerequisites: If needed, prerequisites are indicated in the individual course description. Courses are structured to transfer prior knowledge and skills to the next level of the curriculum.
- **General Education Requirement:** Courses designated with **(GER)** in the course description are designed to fulfill the general education requirement for an American degree and are found in every subject area of the STU catalog.
- **Global Perspectives and Diversity:** Courses indicated with a **(G)** in the course description are designed to prepare students for a global and diverse world, emphasizing global and comparative perspectives on race, ethnicity, and gender.
- **Writing Intensive Courses:** courses designated with a **(W)** in the course description are designed to enhance and strengthen the fundamental ability to communicate effectively, which is essential to a university education.
- **Certificate courses** that grant CH are marked with an asterisk (*)

14.2 COURSES OFFERED BY THE COLLEGES

College of Interdisciplinary Studies

- Anthropology
- Art History
- Cultural Diplomacy
- English
- Fashion Sciences
- Foreign Languages and Literature
 - French
 - Italian
- History
- Law
- Literature
- Pedagogy
- Philosophy
- Political Sciences
- Psychology
- Sociology

College of Innovative and Intelligence

- Computer Science
- Mathematics
- Natural Sciences
- Physics

College of International Business

- Business
- Economics

College of Health Sciences

- Nutrition Sciences
- Nursing Sciences
- Public Health Sciences



14.3 COURSE CODES AND DESCRIPTIONS

14.3.1 College of Interdisciplinary Studies

14.3.1.1 Anthropology

ANT 100 - Intro to Social and Cultural Anthropology (GER)

This course examines significant areas of interest and contributions that social and cultural anthropologists have made in recent years. It describes and analyzes the everyday life, traditions, religious practices, social behaviors, and cultural characteristics of different societies that vary in time and space, demonstrating how institutions may differ due to their cultural and geographic contexts.

ANT 200 - Anthropology of Business (GER)

This course examines the business world and organizations from an anthropological viewpoint. Using scientific and analytical tools developed by anthropologists, students will examine business-related factors, such as productivity and efficiency, as well as the interrelationships between business strategy and culture.

ANT 250 - Visual Anthropology (GER)

This course explores multimodal anthropology, examining the latest developments in this subfield of social anthropology. It addresses issues related to emerging technologies, such as immersive virtual reality, augmented reality, mobile apps, social networks, games, photography, and art, and how they are reshaping anthropological research, practice, and teaching.

ANT 300 - Urban Anthropology (GER)

This course focuses on the lives and challenges faced by migrants from the Global South as they migrate to Western countries. Urbanization and family life, prejudice and discrimination, ethnicity, class, and the culture of poverty are deeply analyzed. Students will learn to use some of the most up-to-date data collection and analytic tools developed and utilized by contemporary urban anthropologists.

14.3.1.2 Art History

ARH 200 - History of Modern Art - History of Art I

Figurative tradition in modern culture; the main artistic movements from the Renaissance to the late eighteenth century; and the evolution of fashion and applied arts styles.

ARH 205 - History of Contemporary Art - History of Art II

This course provides an overview of the leading contemporary artists, analyzes the relationship between art and fashion, compares the work of artists and designers, and discusses the languages of art in fashion.

Credits: 2 CH

ARH 210 - History of Fashion and Design I

The historical evolution of fashion and costume from the beginnings of Mesopotamian textiles to the early nineteenth century in Europe and the United States. A comparative analysis of the economic, political, and social context and the aesthetic influences in art and architecture.

ARH 310 - History of Fashion and Design II

This is a national and international overview of the latest trends in fashion design. It analyzes emerging brands and compares them with established brands. It also provides a historical and social overview from the 1980s and discusses the dynamics behind new design forms.

ARH 350 - Latest Trends in Visual Arts

The course explores the contemporary evolution of artistic practices through a critical and analytical lens. It analyzes the most recent manifestations of modern art. It provides tools for understanding the creative production of the last few decades and the complex scenario of the most recent trends. It compares and debates text, interviews, works, audiovisual testimonies, and other forms of authorship production, focusing on content, socio-cultural context, and exhibition displays. It also examines artistic practices in both public spaces and virtual contexts.

ARH 360 - History of Cinema and Video

The course examines the development and evolution of cinematic and videographic techniques throughout history. Students study the origins of cinema, from the early experiments to modern digital innovations.

Credits: 2 CH

14.3.1.3 Cultural Diplomacy

CUD 200 - Introduction to Cultural Diplomacy (G)

The university course Introduction to Cultural Diplomacy is a training program dedicated to the critical analysis and in-depth understanding of the dynamics that animate cultural diplomacy in the contemporary international context.



In an era marked by growing global interdependence and the fragmentation of traditional paradigms of power, cultural diplomacy emerges as an ethical and political laboratory capable of articulating human coexistence beyond the logic of force and interest.

CUD 330 - Scientific and Cultural Diplomacy (G)

The Scientific and Cultural Diplomacy course provides a space for critical reflection and interdisciplinary study, exploring the dynamics through which culture and science, combined in a horizon of dialogue and cooperation, contribute to the construction of a new, integral humanism. In the current era, marked by a plurality of interconnected cultures and increasingly complex global challenges, scientific and cultural diplomacy is emerging as a privileged tool for fostering intercultural understanding, mediating differences, and promoting a relational ethos based on dignity and the common good.

CUD 400 - Right to Peace for Integral Human Development (G)

The course "Right to Peace for Integral Human Development" is designed as a journey of in-depth study and critical reflection, aimed at investigating the anthropological, ethical, and legal roots of the concept of peace within the context of contemporary globalization. In an age characterized by pervasive interconnections but lacking a common direction, peace reveals itself not only as a political necessity but as an ontological necessity, rooted in the original and inalienable dignity of the human person. Through an interdisciplinary and comparative approach, the course invites participants to move beyond a reductive view of peace as merely the absence of conflict and instead embrace its positive and generative dimensions as an inclusive dynamism of justice, fraternity, and solidarity.

14.3.1.4 English

STU is a U.S. international university that specializes in developing written and spoken English proficiency. Early in their education at the University, all students must take a sequence of courses in English composition and literature to develop the ability to think logically, communicate accurately and clearly, and appreciate the beauty and power of the English language as reflected in its rich literary heritage. These skills will be used and reinforced throughout a student's college career and a career of lifelong learning.

ENG 100 - Basic Academic Writing (W)

This course is designed to enhance students' written study skills, with a focus on organization and information collection. Students will concentrate on developing note-taking, exam-taking, and academic writing skills. Special attention will be given to sentence structure, paragraph development, and essay structure.

ENG 110 - English Composition III (W)

The course is designed to offer advanced instruction in rhetoric and composition studies. Its goal is to develop the more subtle skills necessary to convey critical thinking and fine-tuned analysis across various academic formats, from the simple position paragraph to the more articulate research paper.

ENG 210 - English for Business Studies (W)

This course teaches writing skills suitable for abstract economics, providing the skills necessary to approach both abstract economic theory and concrete business practice. Students will become familiar with the most basic methods of conveying written analysis through exercises that involve reporting technical information. More practical-oriented skills will be developed through training exercises on the everyday tasks required to operate in the modern corporate working environment.

ENG 230 - Scientific English for Health Studies (W)

The course aims to familiarize students with and apply the correct technical and medical-scientific terminology of the profession. It also aims to help them understand the technical instructions in manuals for medical devices and materials, explain in their own words how procedures and diseases work, and understand, calculate, and describe charts.

ENG 240 - Academic Writing (W)

The course aims to introduce students to writing at an academic level. It will analyze techniques for planning and organizing, reading and researching, and using sources, style, and editing.

ENG 250 - Academic Reading and Vocabulary (W)

This course will help students enhance their ability to read the written word and improve their understanding of written English. Particular emphasis will be placed on note-taking techniques, vocabulary expansion, and critical analysis of academic texts.

ENG 310 - Academic Research and Note-Taking Skills (GER)

This course aims to help students develop critical analysis and note-taking skills, including paraphrasing, summarizing, and other techniques. It also considers evaluating information, including resources for research and various types of academic essays, and includes plans for sharing the gathered information in both written and oral forms. Discussion and presentation skills will also be covered.



ENG 320 - Digital Linguistic and Technical Writing (W)

The course aims to broaden students' knowledge of the grammatical, lexical, and textual characteristics of written academic English in a scientific context and to develop students' fluency in speaking English. The course aims to provide a basic understanding of language features, their operation, and the mechanisms involved in their processing. It pays particular attention to the possible applications of this knowledge in digital educational contexts and to how communication in digital contexts contributes to changes in language functioning and use. This knowledge should make students more aware of the effects of oral and written language choices. Technology-mediated communication, when considered in the context of the situation, can produce clear and compelling texts, helping students use and interpret language in the most appropriate and effective ways. An active approach is used: students produce written texts and correct them individually and in groups.

ENG 390 - Public Speaking

This course introduces speech communication and emphasizes practical public speaking skills, including techniques for reducing speaker anxiety and utilizing visual aids to enhance presentations. The goal is to prepare students for success in typical public speaking situations and equip them with the fundamental principles of organization and research necessary to deliver effective speeches.

14.3.1.5 Fashion Sciences

FAS 210 - Material Technology

The course offers a comprehensive understanding of the materials used in fashion, encompassing their classification, physical and chemical properties, and production processes. Students learn testing methods, quality control, sustainability, and innovations in materials. The program includes practical labs and research projects, preparing students to make informed and sustainable choices in their design projects.

Credits: 2 CH

FAS 220 - Brand Design

Strategic marketing. Identification of needs. Competition analysis. Effective promotion. Present and future scenarios of the world of fashion and luxury. Leading companies: case studies.

FAS 230 - Fashion Design Methodology I

Tools for research and analysis of contemporary fashion. Case studies: recognizing and narrating fashion trends. Creating thematic content with a personal perspective. Styling fields and their respective targets. How to Engage with Different Communication Channels. Translating trends and enhancing iconographic communication.

FAS 235 - Fashion Design I

The course introduces students to the fundamental principles of fashion design. It encompasses the research and development of creative concepts, technical and artistic drawing, and the utilization of materials. Students learn to create mood boards and fashion illustrations. The course also includes the study of fashion trends and the development of a basic collection, providing a solid foundation for designing and realizing clothing items.

FAS 240 - Styling Applied to Design I

The focus is on deepening the styling techniques and strategies within the context of fashion design. Students explore the interpretation of trends and cultural influences in creating distinctive images and looks. Creative approaches to selecting clothing, accessories, and settings that convey a cohesive fashion concept are explored. The realization of a photo shoot is also included.

FAS 245 - Illustration Techniques I

The course introduces students to the fundamental illustration techniques for the fashion sector. Students learn the basics of figure drawing, including proportions and anatomy, to accurately represent the human body. The course covers freehand drawing techniques, the use of color, and the creation of textures to represent fabrics and materials.

FAS 255 - Patternmaking and Prototyping I

The course introduces students to the fundamental principles of modeling and prototyping. Students learn the basics of creating patterns, starting from basic blocks for tops, dresses, skirts, and pants. Techniques for model construction are taught, including manipulating darts and adding design details.

FAS 310 - Fashion Photography

Students learn to use photography to create fashion images that capture attention and convey the desired concept. The course covers advanced fashion photography techniques, including lighting, composition, and the use of locations.

FAS 330 - Fashion Design Methodology II

The role of the stylist. The stylist's involvement in the creative communication process of a fashion brand. Cultural background and aesthetic references. Interpreting trends. Fashion publishing. Communicating the visual identity of a brand or a fashion event. Production of images for portfolio creation. Themed photographic workshops: image



research, mood board construction, selection of clothes, accessories, and props. Working in teams to create shots that reflect the concept and personal styling choices.

FAS 335 - Fashion Design II

The course includes conceptual design and the development of sophisticated mood boards and design concepts, integrating trend analysis and sustainable approaches. The program focuses on advanced artistic and technical drawing techniques, utilizing digital illustration tools. It also includes experimentation with innovative materials and comprehensive management of a collection's production phases.

Credits: 6 CH

FAS 340 - Styling Applied to Design II

The course deepens the skills acquired at the previous level, focusing on advanced styling strategies in fashion design. Students explore innovative approaches to creating styling concepts, emphasizing the integration of emerging trends and analyzing contemporary cultural influences. The course includes the realization of a fashion photoshoot.

FAS 345 - Illustration Techniques II

The course explores advanced freehand and digital drawing techniques, with a focus on the detailed representation of fabrics, decorative details, and fashion figures.

The program includes an in-depth study of contemporary and historical illustration styles, as well as the integration of new technologies and graphic software for creating professional presentations.

FAS 350 - Textile Culture and Experimentation

Students study global textile traditions, innovative technologies, and sustainable practices in textile design. They examine materials, weaving, dyeing, and printing techniques, with a focus on creative and experimental exploration. The course also includes practical workshops on fabric manipulation and new technologies.

Credits: 2 CH

FAS 355 - Patternmaking and Prototyping II

The course deepens the skills acquired in the previous phase, focusing on advanced modeling and prototyping techniques. It involves an in-depth study of advanced pattern construction techniques for dresses, shirts, jackets, and pants, taking into account proportions, decorative details, and fit. Students enhance their knowledge of dart manipulation, adapt patterns to size variations, and integrate more sophisticated design elements.

FAS 360 - Accessories Design

The course focuses on the design and development of distinctive accessories within the fashion industry. Students explore accessories, including bags, shoes, jewelry, and belts, examining their practical functionalities and aesthetic impact.

FAS 365 - Textile Design

The course focuses on creating and developing patterns and textures for use in the textile and fashion sectors. Students explore design techniques, including fabric printing, jacquard textiles, and weaving. The program also covers the use of specialized software for textile design and trend analysis, enabling the integration of textile designs into collections. Students develop a deep understanding of fabric properties and their applications.

FAS 370 - Eco-Fashion and Innovative Techniques for Fashion

The world of eco-sustainable fashion with a view to ethical/global product development. Sustainable materials and production processes. New technologies for more responsible production. Human Rights in the Global Textile Industry.

FAS 400 - Textile Culture and Color

Fashion design and materials. Analysis and evolution of the textile product from its origins to today. Color: Knowledge and awareness of its uses. Perceptual, communicative, social, symbolic, aesthetic, and synthetic aspects of color. Color value and chromatic accords. Color change about the surface and light.

FAS 430 - Fashion Design Methodology III

Creation of images for the portfolio that represent personal style. Personal interpretation of the concept of styling. Photography workshops in the roles of stylist and art director. Casting. Posing and attitude. Makeup and hairstyle photography.

FAS 435 - Fashion Design III

The course represents the advanced level of the training pathway, further deepening the skills of fashion designers. Students explore complex themes, including inspirational research, conceptual design, and innovation in the field of fashion design. They focus on creating high-level collections and refining advanced modeling and prototyping techniques. Students also develop managerial skills in collection management and collaboration with industry professionals, preparing for leadership roles in the fashion world.

Credits: 6 CH



FAS 440 - Styling Applied to Design III

The course focuses on advancing styling skills to a higher level within the context of fashion design. Students explore sophisticated approaches to creating styling concepts, integrating conceptual depth and a detailed analysis of global trends. The program involves developing complex fashion projects, specifically selecting clothing, accessories, and settings to communicate the brand's aesthetic and message effectively. The course also provides information on executing a photographic shoot.

FAS 450 - Product Development

The course addresses the process of transforming design ideas into physical fashion products. Students learn the crucial phases of the product life cycle, including material research, pattern design, modeling, prototyping, and fit testing.

FAS 455 - Patternmaking and Prototyping III

The course focuses on refining the advanced skills necessary for creating complex patterns and prototypes in the fashion industry. The program includes a detailed study of pattern construction techniques for haute couture garments, including evening dresses, suits, outerwear, and structured pieces. Students explore advanced approaches to manipulation, draping, creation, and three-dimensional modeling of fabrics.

FAS 460 - Eco Fashion and Innovative Techniques for Fashion

The program introduces sustainable production practices, analyzing processes that minimize environmental impact. Innovative techniques include the use of advanced technologies, such as digital printing on fabric and computer-aided design (CAD) modeling, to optimize design and production processes. The course also emphasizes the importance of ethics in the fashion industry and prepares students to become leaders who promote sustainability.

FAS 470 - Packaging Design

Packaging design and production are designed to extend a business's identity and influence its brand positioning, formal, material, technological, and functional aspects of packaging. The constraints are linked to the different types of distribution. The needs are dictated by marketing and logistics. The traits connected to circularity and, in general, to sustainability, considering the various roles involved throughout the entire life cycle.

FAS 495 - Senior Project

The senior project may take many forms. It may involve a group project to pursue an identifiable problem with a faculty sponsor or choosing a topic for critical review.

FAS 501 - International & Fashion Markets

The meaning, code, cycle, and process of the fashion system. Fashion: identity, ambivalences, anti-fashion, and theories. The organization of the fashion system. The production world. The cultural industry of fashion. Fashion news. Analysis of fashion companies with a propensity for the foreign market. Market, competition, and customer analysis techniques. Presentation of locations suitable for market positioning. Regulations related to product export. Project work.

Credits: 2 CH

FAS 502 - Luxury & Fashion Marketing

Needs, desires, and demand. The economic trend of luxury goods. Characteristics of the fashion market. Strategic positioning, target, and segmentation. Communicating luxury. The key elements of luxury marketing. Brands are a vector of growth in the fashion sector. The licensing relationship. The licensing life cycle: from growth through agreements to internal growth through acquisitions. The creative Fashion & Luxury Marketing project. Organizational implications: different licensing of professional skills. The Brand and Counterfeit: Legal Issues.

Credits: 2 CH

FAS 503 - Sociology of Consumer Behavior

Study of new trends in consumption: eco-consumption and virtualization of consumption. Analysis of consumer behavior in the context of the global market and the cultural factors that determine consumption. The social dimension of consumption: consumer behavior about the social structure in which they live, their age group, and level of education, and the influence of social media—study of new research methods related to consumer behavior: comparison between qualitative and quantitative research.

Credits: 2 CH

FAS 504 - Sustainable Economics of Fashion Global Business

The Meaning of Eco Fashion and an Analysis of All the Processes Involved. A study of the fashion industry's impact on the environment and the virtuous behaviors that aim for a fashion industry built on equity, inclusion, and social and environmental welfare. Study of the main characteristics of the economic system that is sustainable on a social, financial, and ecological level within a context of globalization in which the exchange of resources, goods, and services challenges the concept of ethical and environmental responsibility.



FAS 505 - Business Ethics and Analytics

Study, understand, and analyze raw data to create relevant diagrams that provide decision-makers with valuable and innovative insights and solutions.

Credits: 2 CH

FAS 506 - Financial Reporting

Study of the method for documenting and communicating financial activities. A fashion company's Balance Sheet, Cash Flow, and Income Statement.

Credits: 2 CH

FAS 507 - Buying Techniques & Merchandising

Analysis of the buyer's role throughout history. New operational tools and the negotiation process. Analysis of the merchandising plan and how it contributes to a winning commercial offer. Simulation of how to compile a merchandising plan.

Credits: 2 CH

FAS 508 - Circular Economy

The study of an economic model based on production and consumption is founded on the reuse and recycling of existing materials to extend the life of products as much as possible in the context of environmental responsibility, ethics, and sustainability. Application of the circular economy in the fashion and luxury goods sector. Study of strategies that allow a product to remain in the economic cycle for as long as possible, and the positive impact of this approach.

FAS 509 - Licensing & Brand Extension

The brand is a vehicle for growth in the fashion industry. The licensing agreement. The life cycle of licensing: from growth through agreements to internal growth through acquisitions. The creative project. Organizational implications: different licensing roles. The Brand and Counterfeiting: Legal Issues. Brand extensions as opportunities for brand growth. Case history analysis.

Credits: 2 CH

FAS 510 - Digital communication

Study the design and management of a web marketing plan that integrates online marketing actions with corporate marketing strategies. E-marketing and digital strategic planning, search engine optimization (SEO/SEM). Introduction to social media marketing and social advertising, real-time bidding, and programmatic buying. E-commerce: strategies and development, Affiliate Marketing and loyalty, and Sales Data Analysis.

Credits: 2 CH

FAS 511 - Third Sector and Fundraising for Fashion

Study private non-profit organizations operating outside the public sector but in coordination and cooperation with the public administration. Analysis of operating models, positioning strategies, legal and organizational aspects. The importance of the Third Sector in an ethical and sustainable economy and institutional welfare services. Analysis of models, legal, and organizational aspects. Fundraising strategies: identifying development tools and generating a fundraising plan.

Credits: 2 CH

FAS 512 - Fashion Brand Design

Introduction to vector and bitmap graphics programs used in the fashion industry. Photoshop: learning the leading tools, analyzing image management, and different photo editing techniques. Creating a mood board. Introduction to InDesign.

FAS 527 - Project Management & Start-up

This course covers how to launch a business in the fashion sector, the main business models in the industry, modern business entrepreneurship principles, developing a winning start-up strategy and an action plan for launching a business project, and methods for raising capital for your start-up.

Credits: 2 CH

FAS 528 - Collection Costing & Processing

Definition of clothing/accessory items to create a complete and successful merchandising plan suitable for wholesale (buyers) and retail (end consumers) according to a precise target. Analysis of costing (costing sheets) and mark-up. Composition of outfits for the sample collection.

Credits: 2 CH

FAS 529 - Eco-fashion & Sustainable Fabrics

What is eco-fashion, and what processes does it involve? Study the fashion industry's impact on the environment and workers, as well as responsible behaviors that aim to achieve a fashion industry built on equality, inclusion, and social and environmental welfare. This course introduces the world of eco-friendly and sustainable fashion,



from materials to eco-friendly production processes that respect human rights in the global textile industry. It is essential for training future fashion and textile designers who are aware and responsible.

FAS 530 - Laws and Certifications

Study the primary laws and certifications that guarantee correct, sustainable, and responsible production. Additionally, consider the environmental and social costs of the fashion industry and the need for more sustainable business models and practices.

Credits: 2 CH

FAS 531 - 3D Patternmaking

Essential knowledge of Lectra 3D CAD software (3D Modaris) and its main uses in the textile and clothing industry. Creation of 3D rendering on a moving body of models of previously designed garments for which the prototypes have already been created through moulage.

FAS 532 - Moulage and zero waste

Constructing garments with moulage techniques that allow for the creation of unique and impactful pieces through the use of traditional artisanal methods. Transposition onto mannequins of garments designed previously. Study of zero waste patternmaking, such as altering a pattern so that no fabric is left unused, to create a collection as sustainable as possible. The course aims to create a collection based on the moulage and zero-waste techniques.

FAS 533 - Collection Design & Planning

Design and creation of a men's or women's collection. Simulation of the steps needed to create a fashion collection. Inspiration through the analysis of current tendencies and the market. Creation of the mood board, general color palette, and colors for groups of materials. The choice of fabrics and threads, prints and treatments. Research on details and decorations.

Please note: The simulation will be done using downloaded images; no sketching or drawing skills are required.

Credits: 6 CH

FAS 534 - Upcycling Techniques

Study the main upcycling techniques and apply those procedures to design an entire upcycled collection, including the production of one prototype.

FAS 535 - Fashion Graphic Design (Photoshop & InDesign)

Introduction to the vector and bitmap graphics programs used in the fashion environment. Photoshop: learning the leading tools, analysing image management, and the different techniques for retouching photos. Mood board creation. Project management. Introduction to InDesign and creating layouts for editorial projects.

FAS 600 - Technical and Design Drawing

This course focuses on representing design ideas through CAD drawings and conceptual visualization. Emphasis is placed on acquiring proficiency in using software technologies for creating 3D models. Students will develop the ability to translate two-dimensional concepts into detailed three-dimensional representations, which is essential for prototyping and presenting projects in the industry.

Credits: 4 CH

FAS 605 - Digital photography

The course provides a foundation in theoretical and practical knowledge of digital photography, explicitly correlated with the expressiveness and techniques of fashion photography. Objectives include understanding the fundamental principles of digital imaging, acquiring operational skills in using photographic equipment and processing software, and applying these competencies to produce professional images in the fashion context.

Credits: 4 CH

FAS 610 - Project Culture

This module aims to develop a deep awareness of the economic, technological, and commercial constraints that influence the design process in Fashion Art Direction. Students will analyze market dynamics, the implications of costs, and the impact of technological innovations on design decisions, promoting a holistic and pragmatic approach to artistic direction.

Credits: 4 CH

FAS 615 - Fashion Setting

With a significant credit allocation, this course provides an in-depth analysis of the fashion environment, giving substantial attention to the advanced integration of ethical and artistic considerations into design decisions. Students will conduct in-depth research and develop projects that reflect a critical understanding of contemporary challenges and opportunities in the sector, with particular emphasis on sustainability and social impact.

Credits: 4 CH

FAS 620 - Project Culture

This course, with a reduced credit load compared to FAS 610, further deepens the awareness of economic, technological, and commercial constraints in the Fashion Art Direction design process. It focuses on specific



analyses and case studies, strengthening students' ability to manage the complexities of the market and production.

Credits: 2 CH

FAS 625 - Fashion Setting

With a significant credit allocation, this course provides an in-depth analysis of the fashion environment, giving substantial attention to the advanced integration of ethical and artistic considerations into design decisions. Students will conduct in-depth research and develop projects that reflect a critical understanding of contemporary challenges and opportunities in the sector, with particular emphasis on sustainability and social impact.

Credits: 6 CH

FAS 630 - Videography

The course aims to provide the technical and critical knowledge necessary to undertake videographic projects, including animations and commercials. Students will learn the fundamentals of video production, from concept to post-production, developing skills in visual storytelling and managing relevant equipment and software.

Credits: 4 CH

FAS 635 - Web Design

This module explores the pivotal role of graphic design in both web and mobile design. It focuses on the fundamental principles of layout, typography, and color theory as applied to digital interfaces. Students will acquire the skills necessary to design user-friendly and aesthetically compelling web and mobile experiences.

Credits: 4 CH

FAS 640 - Digital Image Processing

This course focuses on acquiring technical skills for digital image processing. Topics covered range from foundational post-production techniques to advanced principles of color management. Students will learn to manipulate, optimize, and standardize digital images for various professional applications.

Credits: 4 CH

FAS 645 - Art Direction

This course is designed to develop the essential skills for the role of an art director in the fashion industry. The curriculum incorporates the integration of multimedia elements into creative projects, fostering the development of essential managerial competencies necessary to lead and execute artistic visions effectively.

Credits: 6 CH

FAS 650 - Virtual Architecture

This module focuses on developing skills in applying technologies to create three-dimensional virtual environments. A particular emphasis is placed on the context of fashion art direction, enabling students to design and visualize digital spaces for runway shows, exhibitions, or experiential marketing.

Credits: 4 CH

FAS 655 - Digital Video

This course involves an aesthetic and semiotic exploration of the moving digital image. Students will develop practical skills for creating digital video productions specifically for fashion, covering aspects from conceptualization to execution, and understanding how video communicates meaning within the fashion narrative.

Credits: 4 CH

FAS 660 - Light Design

This course provides an understanding of the theories and practices of lighting design as applied to the fashion industry. The focus is on analyzing the visual effect of lighting on collections, exploring how illumination can enhance presentation, evoke mood, and highlight design details.

Credits: 2 CH

FAS 665 - Concept Planning

This module aims to develop skills in outlining the fundamental elements of a project within the fashion industry. It includes an examination of implementation processes and the identification of necessary resources for project execution, providing a structured approach to initial project development.

Credits: 2 CH

FAS 690 - Personal Branding & Portfolio

Develop and manage personal projects by planning time frames and resources. Create an individual identity: logo, letterhead, business cards, and social media graphics. Design a professional and effective portfolio graphically.

FAS 695 - Project work and Master's Thesis

Students will prepare a thesis under the guidance and direct supervision of a faculty member, with the approval of that faculty member.

Credits: 6 CH



14.3.1.6 Foreign Languages and Literature

FRE 100 - French Language I

French language and grammatical rules. Written exercises, tests, conversations, dialogues, and readings related to the world of fashion.

FRE 200 - French Language II

French language and review of grammatical rules. Written exercises, tests, conversations, dialogues, and readings related to the world of fashion.

FRE 300 - French Language III

Conversation in French on articles selected by the students. Develop the curriculum in French and prepare for a job interview through role play.

ITA 100 - Italian Language I

Italian language and grammatical rules. Written exercises, tests, conversations, dialogues, and readings related to the world of fashion.

ITA 200 - Italian Language II

Italian language and review of grammar rules. Written exercises, tests, conversations, dialogues, and readings related to the fashion world.

ITA 300 - Italian Languages III

Conversation in Italian on articles selected by the students. Develop the curriculum in Italian and prepare for a job interview through role play.

ITA 350 - Italian Culture and Eno-gastronomy

The Italian Eno-gastronomy and Culture Course is designed for students interested in deepening their knowledge of Italy's history and culture, which, in addition to being a hub of ideas and innovation, continues to be a leader in tourism and gastronomy. Students will examine particular aspects of regional gastronomic history and culture through the contextualization of its various historic periods. Typical recipes, dishes, and wines will be examined.

ITA 320 - Contemporary Italian Culture (W)

Students will examine the development of Italian culture through the study of cultural materials, including literature, political texts, and theatre. Central themes are the relationship between politics and culture within their historical context. In addition, various aspects of Italian society, including family, education, sports, economics, immigration, and politics, will be examined.

ITA 410 - The Discovery of Italy in British Romantic Literature (W)

Italy's Classical, Renaissance, and Baroque heritage attracted many British authors and artists throughout the nineteenth century, and such a journey became an extended "study abroad" experience for aristocratic youth, known as the Grand Tour tradition. P.B. Shelley, Lord Byron, Henry James, E. M. Forster, Oscar Wilde, John Ruskin, D. H. Lawrence, T.S. Eliot, Ann Radcliffe, and George Eliot, among others, wrote about their travel experiences in Italy. In this course, we will read selections from their novels, essays, journals, and poetry, as well as watch a film adaptation of *A Room with a View* (by E. M. Forster) to appreciate these authors' romantic fascination with Italy.

14.3.1.7 History

HIS 350 - Russia: Revolution, State, and Empire (G)

This course outlines the struggle that Russia and the people of other former Soviet republics are engaged in to interpret and understand their recent history: the visions for which it was founded, the victories and losses that altered these visions, and its final collapse. In 1991, the former Soviet Union was the latest in a series of revolutions and upheavals during the 20th century. Emphasis will be placed on the shift from absolute monarchy to dictatorship under Stalin, the changes made from Khrushchev to Gorbachev, and the economic transformations that led to the Soviet economy becoming the second in the world.

HIS 360 - Studies In U.S. History: The Environmental History of Urban America (GER)

This course focuses on American cities and their diversity. These cities have strikingly diverse geographic and ecological settings, and their settlement and development occurred at different rates and times. Various themes analyzed include the impact of environmental transformation on the world, the tension between economic growth and ecological sustainability, and the cultural construction and contingency of these issues.

HIS 600 - Digital Bibliography and Librarianship

The course aims to present students with knowledge of the main tools, methods, and problems of librarianship and bibliography that are increasingly linked to the digital world. The course will consider the concept of moving by examining two perspectives: the librarian's and the user's, who operate within the interactive digital documentary environment.



14.3.1.8 Law

LAW 100 - International Law (GER)

The course will introduce the students to the fundamental concepts and topics of public international law and the global legal system. The course will examine the key issues in this field, including the sources and subjects of international law, the jurisdiction of states, the use of force in international law, and the relationship between international law and the internal law of states.

LAW 150 - Law in Digital Contexts

The course addresses the convergence of Law and society, as well as the intersection of law and artificial intelligence. It also addresses the changes produced in the digital age by the emergence of the Web of Data, Big Data, and the Internet of Things.

LAW 200 - Business Law and Ethics

This course addresses the fundamental principles of the laws that regulate business activities. It provides students with a solid foundation in law, business ethics, sustainability, and social responsibility. It addresses introductory topics such as contracts, negotiable instruments, debtor-creditor relationships, business organizations, real property and estates, essential concepts of Common Law, Statutory Law, Administrative Law, Constitutional Law, Crime, Dispute resolution, and International Law.

Topics also cover ethics and business, sustainability, law and ethics, ethical principles in business, the marketplace, the environment, consumer protection, marketing, and job discrimination. It will involve extensive use of case studies.

LAW 320 - Ethical and Legal Aspects of Artificial Intelligence-Based Technologies

The course is designed to equip students with the legal knowledge and technical skills to navigate the complex ethical, legal, and social implications of new technologies.

Students will address the regulatory challenges of our times, including the exponential growth of artificial intelligence, big data, and related disruptive technologies, as well as blockchain and 'smart contracts' and their effect on markets, professional practice, and governance.

LAW 350 - Public Law and Labor Protection in the Digital Age

The course addresses the challenges governments and social partners face in monitoring the evolution of employment patterns driven by various technologies across different sectors and countries. Clarifying the legal framework and support for workers by governments and social partners needs to be analyzed from a transnational perspective. This ensures that differences between legal and institutional systems are not exploited to diminish employment quality by using digitized workflows to outsource work to regimes with less employment protection.

LAW 600 - Information and Media Law

The course on media law aims to provide an in-depth analysis of the challenges faced in this ever-growing area of law. Students will also be introduced to legal and ethical issues related to the media and contemporary legal problems associated with media law. The Information and Media Law course aims to provide an in-depth analysis of the challenges faced in the ever-growing area of media law. Students will also be introduced to legal and ethical issues related to the media, as well as contemporary legal problems linked to media law.

LAW 650 - Criminal Law of Information Technology

The course addresses the complex implications of the criminal justice system and new technologies. The information society, characterized by the explosion of the Internet and new technological products, has long entailed momentous changes in every area of human life, implying multiple opportunities for "positive" development and modes and types of behavior of criminal significance that need a specific supranational normative response.

LAW 340 - Elements of Copyright

Elements of private law for the protection of copyright in the editorial field. Methods to safeguard the intellectual property of one's work.

Credits: 2 CH

LAW 345 - Law and Licensing for Digital Communication

Elements of private law. Trademark protection is applied to the luxury goods sector, and legal forms are involved in licensing contracts. Discuss case studies to gain a comprehensive understanding of the dynamics.

14.3.1.9 Literature

LIT 100 - Introduction to American Culture (GER)

Learners in this course explore what people perceive as "American culture." The purpose is to show students the cultural and historical processes from which these cultural values have emerged and how they have been transformed and expressed in contemporary times through various themes, including family, ethnic and cultural diversity, consumerism, entertainment, and technology, among others. An essential companion for learners of



American culture is viewing it through various anthropological lenses, such as cartoons, cinema, music, fashion, and trends.

This course is NOT intended for American students to take.

LIT 110 - Contemporary American Culture (GER)

The course approaches twentieth-century America from a multidisciplinary perspective, focusing on various historical, sociological, and cultural issues. It explores key themes in contemporary American society, such as race, identity, gender, social class, and religion, including their representation in literature and the other arts.

This course is NOT intended for American students to take.

LIT 120 - Introduction to American Literature (GER)

This course provides an overview of the most significant works of American literature. It focuses on the most important literary movements and writers and includes the literary works and genres of ethnic minorities (African Americans, Native Americans, etc.).

This course is NOT intended for American students to take.

LIT 250 - British Literature I (GER)

This course discusses the main literary movements, authors, works, and genres from the Anglo-Saxon period to the 18th century, such as "Beowulf," "Sir Gawain and the Green Knight," Chaucer, Spenser, Sidney, Shakespeare, Donne, Milton, Dryden, Pope, Swift, Fielding, Johnson, and Boswell.

LIT 260 - British Literature II (GER)

This is a survey course of the most influential British literary movements, figures, and genres from the Romantic Age to the present. Writers studied may include Austen, the Romantics, Tennyson, Browning, Arnold, Dickens, the Brontës, George Eliot, Hardy, Yeats, Joyce, D.H. Lawrence, Forster, Woolf, T.S. Eliot, Auden, and Beckett.

LIT 350 - 19th Century U.S. Literature (GER)

This course provides a critical introduction to nineteenth-century American literature. It addresses the characteristic preoccupations and concerns of American writing, the relation of writing and culture to the sustenance of nation and community, the morality of a culture, the culture of character, the development of new literary perspectives, styles, and techniques, the formation of distinctive literary traditions, the historicity of literary movements, and the relation of criticism to literary canons and culture through the nineteenth century.

LIT 360 - 20th Century U.S. Literature (GER)

This course focuses on 20th-century U.S. literature. This course traces the development of realism, naturalism, and modernism in their literary, social, and historical contexts. Particular attention is given to shifting notions of nationhood, war, race, ethnicity, gender, sexuality, culture, and modernity.

LIT 370 - U.S. Intellectual History, A Survey

The course offers a survey of American public discourse from the Puritan Era to the present day. Based on the Capper-Hollinger reader, the course is to familiarize students with some of the fundamental texts in the tradition, as well as with the best secondary literature of the field.

14.3.1.10 Pedagogy

PED 100 - Social History of Education

This course aims to develop students' pedagogical competence in the digital realm, with an explicit emphasis on the historical and evolutionary aspects of critical topics. These topics encompass the history and evolution of technology, as well as its implications for education. The course examines the educational, epistemological, and ethical dimensions of technology, as well as the impact of technological advancements on teaching and learning processes. It also explores the history of critical concepts related to education, including instruction, training, and education itself. The course describes how these concepts have evolved and examines their practical implications in educational settings, particularly in the digital world, as well as their impact on education. The course explores contemporary youth anthropology by comparing it with the recent past and analyzing the changing socialization and identity processes influenced by digital technologies. The course also examines new thinking models and learning patterns in the digital age.

PED 150 - Pedagogy and Current Emergencies (GER)

This course deals with several topics related to Academic performance, including various factors that affect performance, such as learning styles, motivation, and assessment methods. Additionally, pedagogical strategies and interventions are designed to enhance student performance. Behavioral disorders, their different types, causes, and their impact on learning and social interactions. In addition to strategies for identifying and supporting students with behavioral disorders. Cyberbullying is a form of online harassment and aggression. The course explores its development, impact on individuals and communities, and ethical implications. Preventive measures, intervention strategies, and the role of digital technologies in addressing cyberbullying will also be examined. In addition, the course includes an academic proposal with three main components. One is meta-cognitive analysis,



which involves understanding and regulating one's cognitive abilities. Modifiability of Mental Fields refers to individuals' potential to modify and improve their cognitive skills. Trans and Post-Disciplinary Educational Pathways include innovative educational approaches that transcend disciplinary boundaries. The course concludes with a presentation and discussion of the process and research reports on the topics covered.

PED 200 - Didactics and General Pedagogy

The course introduces the theoretical and methodological foundations of pedagogy and general education, with a particular focus on children in the 2- to 7-year age group. Its purpose is to help students develop knowledge, understanding, experience, and the ability to reflect on educational contexts and relationships. These include, for example:

- (a) The complexity and quality of educational contexts and relationships;
- (b) Educational projects and processes;
- (c) The specificity and importance of the educational profession for the individual development of each child, and
- (d) the role and value of the profession in promoting the holistic development of young children and contributing to the well-being of society.

PED 250 - General Teaching and Special Education

This course aims to introduce students to the knowledge and skills necessary to teach special populations, including students with disabilities and those who have demonstrated high achievement. It is a foundational course designed to provide students with an understanding of pedagogical principles and strategies for effective teaching in inclusive educational settings. The course will examine pedagogical approaches to special education, the design of inclusive digital learning environments, the importance of individualized assessment, and the development of individual learning plans (IEPs) for students with special needs, stakeholder collaboration, communication, and ethical and legal considerations and issues related to special education and digital teaching. The course emphasizes the integration of digital technologies to enhance teaching and learning experiences.

PED 300 - Innovative Teaching Methodologies

This course emphasizes teaching and aims to illustrate the primary teaching methodologies used in formal and non-formal education, as well as various college and training contexts for different age groups. Beginning with the learning theories of the last century (behaviorism, cognitivism, and constructivism) and their repercussions on teaching, the most well-known teaching strategies used in educational contexts will be addressed, with particular reference to those considered innovative: Lecture, Cooperative Learning, Problem-Based Learning, Project-Based Learning, Inquiry-Based Learning, Flipped Classroom, Team-Based Learning, Role-Playing, Simulation, Laboratory Teaching, Professional Learning, Outdoor Training, Debate, Self-Directed Learning, Coaching, Mentoring, and Counselling. The purpose of emphasizing teaching in this course is to put students in an active, real-world-like position, allowing them to experience these methods firsthand and foster their learning through experience.

PED 350 - Digital Citizenship: Educational and Training Elements (G)

The course covers the building blocks of "digital citizenship." It includes constructing a digital citizenship curriculum for teachers, teaching methodologies for peace education and global citizenship, the transversality dimension, and assessing digital and civic competencies.

PED 360 - Digital Inclusion Processes and Open Educational Resources

This course covers open educational resources and their relationship to digital educational inclusion. Throughout the world, Open Educational Resources have had a significant impact on almost all educational systems. The idea is that by combining the sharing potential of the network with an available licensing system, anyone can access quality academic resources, leading to more democratic and inclusive education systems.

PED 400 - Research and Evaluation in Digital Educational Contexts

The course aims to provide the basic knowledge and skills, as well as the main lines of inquiry, related to research and evaluation in educational contexts. National and international case studies, as well as published research, that cover course topics will be analyzed during lectures. At the end of the course, and based on the construction of different research designs, students will be able (1) to formulate research hypotheses and build a theoretical frame of reference, (2) to identify and structure the stages for initiating empirical research, (3) to distinguish between quantitative and qualitative research, and (4) to master the most essential survey techniques and tools. In addition, through exercises and small group activities, students can "experiment" with digital tools and resources to conduct research and evaluation in education.

PED 495 - Senior Project

The senior project may take many forms. It may involve a group project to pursue an identifiable problem with a faculty sponsor or choosing a topic for critical review.

PED 550 - History of Education and Communication Processes

This course will guide students through the chronological stages by which different modes of communication have emerged, developed, and evolved, from Gutenberg to the advent and emergence of multimedia communication



in today's globalized world. Course content and activities will allow students to reflect on current communication dynamics and their impact on educational and formative processes. With this perspective and the application of academic history methods, the imaginative phenomena of narrative communication, from literature to everyday life, will be investigated. Special attention will be given to cartoons and the relationship between narrative, educational models, and cultural transmission.

PED 560 - Pedagogy and Learning

This course will examine educational theories and methodological approaches to analyze the complexities of educational phenomena, with a particular focus on the multicultural dimensions of our contemporary world. Topical pedagogical issues related to education, intercultural communication, the cultural nature of developmental, educational, and learning processes in childhood and adolescence, relationships between peers and between adults and children minors in academic contexts and Colleges, and the relationship with migrant families and children in different developmental contexts will be explored. Through applying critical analysis of relevant education research, pedagogical issues and problems will be debated.

PED 570 - Innovative Tools for Teaching

Digital competence is increasingly central to innovative and informed teaching. The need to develop a broad range of digital competencies for teaching has emerged as an essential priority. This course analyzes the valorization of error in digital teaching, from paper books to eBooks and instruction by storytelling and digital storytelling. It will include teaching with APPs, G Suite for Education, Kahoot, Google Drive modules, EAS, Flipped Classroom, Google Classroom, and Open Board.

PED 580 - Information Technology Methodologies for E-Learning

The course is structured as an overview of crucial digital-age teaching activities. These include a theoretical component on instructional design models, with a particular focus on the principles of multimedia learning and the design of environments and resources for online education. Additionally, there is a seminar on media education processes in formal education systems and an online workshop on designing and implementing teaching modules on the Moodle e-learning platform.

PED 590 - Promotion and Monitoring of Digital Culture and Research

The study and reduction of digital educational poverty concern the deprivation of opportunities not only to learn but also to experiment, flourish freely, and develop and enhance skills, talents, and aspirations through the responsible, ethical, and creative use of digital tools. The course reinforces students' knowledge and functional skills in designing and implementing educational pathways to acquire and test basic digital skills. The course's theoretical framework is consistent with the latest Digital Competencies frameworks, and the method employed is based on SLE techniques—Situated Learning Episodes. During the course, students will experience a variety of Digital Competencies (Wikipedia entry, online petition, podcast, digital storytelling). The class will also function as a Newsroom, with roles filled by students divided into interchangeable groups or operational teams. This will allow students to activate and acquire different skills.

PED 600 - Design and Evaluation of Online Pathways

The course aims to explore theories of design and evaluation in online education, enabling students to develop skills in using methods, tools, and procedures to create and evaluate educational processes and interventions.

PED 610 - Digital Communication

Through analysis and discussion, the course's main content studies the relationship between media, culture, and society. Students will learn that digital media forms a complex system of interconnected forces within which technological innovations, economic dynamics, aesthetic canons, and political tensions generate an unresolved debate. Students will acquire valuable tools for understanding the communication processes and social behaviors encouraged by new technologies. Key concepts within media studies discussed during the course include medium, technology, gaze, utopia and dystopia, representation and simulation, information and disinformation, propaganda, control, and surveillance. The principal subjects of the analysis encompass the production, distribution, and consumption processes of content and knowledge, as well as ideas and images, in the digital age. These subjects also include technology, ecology, nature, culture, sociality, performativity, networks, and communities, as well as the relationship between capitalism and digital culture.

PED 650 - Education in the Knowledge Society (G)

This course explores the concept of education in today's multicultural and globalized society. It highlights how the revolution in digital technologies has transformed education, creating a new pedagogical lexicon for designing and coordinating educational and training interventions across various professions. The first part will investigate the relationship between education and the laxity of communication and rethink education in a complex, plural, interconnected, and technological world. In the second part, students will experiment with transferring and constructing knowledge to establish cooperative and collaborative online learning environments through cooperative learning, to develop critical thinking skills.



PED 660 - E-Learning and Digital Education Research Methods

The course aims to illustrate the principal methods and tools for conducting media-educational research. It will provide students with theoretical and methodological tools for reading and designing research in different educational contexts relevant to media and the digital realm, concerning media. Specifically, the following topics will be covered.

- 1) Introduction to the principal theories and methods of academic research.
- 2) Research strategies most applicable to digital education.
- 3) Tools for analysis in educational contexts, emphasizing comparing qualitative and quantitative approaches and their relationship with media.
- 4) Media digital skills development for educators, teachers, and trainers.
- 5) Construction of research tools and,
- 6) Research involves using bibliographies, online materials, research tools, data collection, and analysis and interpretation of results.

PED 665 - Reading and Conference - Independent Study

Directed readings in Digital Education are an advanced-level course for graduate students. With a faculty member's approval, guidance, and direct supervision, directed readings or independent study allow students to engage in focused, individualized study.

PED 670 - Research - Independent Study

Independent study and research are advanced-level courses for graduate students. With a faculty member's approval, guidance, and direct supervision, students can conduct a research project that results in a thesis or major paper.

PED 690 - Master's Thesis

Students will prepare a thesis under the guidance and direct supervision of a faculty member, with the approval of that faculty member.

Prerequisite: 30 Credits

14.3.1.11 Philosophy

PHI 100 - Introduction to Philosophy (GER)

The course is designed to introduce students to philosophical questions and raise their awareness of how some of history's greatest philosophers have approached them and what they have said about them. Students will also articulate their philosophical concerns and, most importantly, learn how to address them. This course will explore ethics, political philosophy, metaphysics, and the theory of knowledge as areas of philosophy.

PHI 300 - Modern Social Philosophy (GER)

This course will examine the principal modes of 20th-century moral philosophy and its possible applications. Attention will be paid to writings about, but not limited to, political ethics, bioethics, violence and war, family, and global food supply.

14.3.1.12 Political Science

POL 100 - Introduction to International Relations (GER)

This course will help the students develop an in-depth analysis of contemporary international relations. It examines the key concepts in international relations, including the balance of power. Issues are connected with the emergence of a new world order and new international political actors.

POL 150 - Women and Politics (G)

This course analyzes women's roles and political integration from various perspectives (social, empirical, cultural, and historical). It also examines the impact of feminist theories on the quality of political discourse and action.

POL 200 - Global Poverty and International Responsibility (G)

This course examines the actual extent and distribution of global poverty. Students will analyze the social, political, and cultural factors that exacerbate this problem in both developing and developed countries, as well as the various aspects and consequences of globalization. Additionally, they will examine the actions of NGOs and other international organizations in this field.

POL 230 - Introduction to Public Relations (GER)

This course introduces students to fundamental theories and practices of public relations, the legal and ethical framework of PR for sustainability, the process and application, the relationship between PR, marketing, and advertising, new trends in PR, best practices, how the web has changed the rules of marketing and PR, action plans for harnessing the power of new regulations in PR, online PR, and social networks.



POL 250 - Political Communication (GER)

This course examines the interconnections between mass communication and political science. It discusses the European and U.S. political systems, as well as the main issues in political communication strategies. Moreover, it analyses case studies of means and tools adopted during selected electoral campaigns.

POL 300 - Governments and Politics Worldwide (G)

During this course, the students will analyze parliaments, political parties, elections, legislation, and the formation of governments in different political systems worldwide. They will examine the social, economic, and political priorities of each political system, as well as their social, cultural, and historical relevance.

14.3.1.13 Psychology

PSY 150 - General Psychology (GER)

The course aims to introduce and analyze basic knowledge about cognitive processes. Topics such as the mind-brain relationship, perception, attention, decision-making processes, and the methods psychologists use to study the mind and human behavior will be addressed.

PSY 250 - Development and Educational Psychology

The course aims to provide knowledge about individual development, considering the complexity of different growth contexts, from traditional ones, such as College and family, to virtual communities in which new modes of communication and learning emerge, both functional and dysfunctional. Transversal skills such as understanding phenomena, problem-solving, analytical and comparative skills, and metacognitive skills will also be provided.

PSY 300 - Social Psychology

This course aims to provide the theoretical tools for analyzing the main topics of social and group psychology. It also aims to understand cultural processes by studying and managing psycho-social dynamics. Primary themes of the discipline, such as social perception, social influence, group functioning, inter-group relations, and the dynamics underlying prejudice, will be explored. Frequent examples will accompany the theoretical presentation of each topic. This way, the course will provide a solid understanding of theoretical content and connect it to relevant educational and training issues. These topics will be beneficial in various educational, training, and leisure contexts, including educational institutions, child and adolescent centers, cultural services, intercultural centers, and conflict mediation services. This will help students acquire the necessary skills to design, implement, manage, and evaluate individual and collective educational interventions. Students will be encouraged to participate actively and critically. Participation in one or more optional seminars will also be offered, and their evaluation will contribute to the final grade.

PSY 310 - Neurocognitive Bases of Learning

In this course, considerable emphasis will be placed on understanding the mechanisms and processes underlying learning, the factors that influence it (e.g., memory and emotions), and the analysis of the neurobiological correlates underlying learning. In addition, the course will provide students with the knowledge and skills necessary to describe different cognitive functions critically, understand the importance of scientific research in this area, and use appropriate technical language.

PSY 320 - Psychology of Innovation

This course explores how and why psychology can and must adapt to the constant change imposed by digital transformation. Emphasis will be placed on approaches and methods designed to help people connect with their goals during this process.

PSY 330 - Introduction to Psychometrics

Standardized measures are used in all areas of psychological research, providing a critical lens through which we can view human nature, from diagnostic to character, from neurocognitive to unconscious, intellectual, social, and cultural aspects. This course introduces students to psychometrics and the methods psychologists use to conceptualize human behavior and individual differences in abilities, attitudes, values, personality, and intelligence. The course covers a range of psychometric theories that will help us understand the basics of psychological measurement to develop a critical language for conceptualizing the boundaries and limits of our "knowledge." The main goal of this course is to help students gain a greater understanding of human nature's complexity, how psychological assessment can help us understand its nuances, and how individual differences can be conceptualized for clinical and research purposes.

PSY 350 - Psychology of Interaction in Digital Context

This course examines how mediated communication undermines dialogue in contemporary society and its psychological effects on people's lives.

PSY 400 - Digital Technologies and Psychological Development

This course will explore the psychological dynamics involved in a person's interaction with digital media, specifically focusing on social robots and social networks, and the variation of these dynamics as a function of



age. It will describe the psychological processes that make them functional or dysfunctional, as well as their potential for development. The role of educational facilities in promoting the conscious and safe use of new technologies will also be analyzed. Finally, the psychology of video games will be explored.

PSY 420 - Media Phenomenology

The course involves the philosophical and theoretical study of media phenomena and their subjective experience. It explores how media influence human perception, knowledge, and social interaction. Students examine theories of message mediation through various media, including television, cinema, the internet, and social media, analyzing how these media shape and reflect contemporary culture.

PSY 430 - Neural Learning and Deep Learning

This course examines how, in the field of neuroscience, the term 'neural network' refers to a network or circuit formed by neurons, and how neural networks reflect the behavior of the human brain, enabling computer programs to recognize patterns and solve common problems. It then addresses the meaning of Deep Learning, which refers to a branch of artificial intelligence that mimics the structure and function of the brain. From a scientific perspective, it analyzes Deep learning, a technique in which artificial neural networks are exposed to vast amounts of data so that they can learn to perform tasks.

PSY 450 - Risk Behaviors and Conduct and Psychopathologies in Digital Contexts

The objective of this course is to analyze, on a theoretical level, risk behavior on the Internet in all its forms. The issue of loneliness is examined, and its most common causes will be outlined. At the practical level, the course aims to identify differences in the incidence of Internet risk behavior in adolescents by analyzing their socio-demographic characteristics.

PSY 470 - Efficacy Communication and Public Speaking in the Health Professions (GER)

This course focuses on communication skills that effectively convey information, encompassing both verbal communication (such as voice units and listening strategies) and nonverbal communication (including gestures, expressions, eye contact, and body language). Training on informing patients about their health conditions, illnesses, treatments, or bad news usually involves highly emotionally charged behaviors. Communication skills are, therefore, essential for healthcare providers to establish positive relationships with patients, improving their health and quality of life. Thus, the need for communication on health issues to be a priority is justified.

PSY 495 - Senior Project

The senior project may take many forms: a group project to pursue an identifiable problem with a faculty sponsor or to choose a topic for critical review.

Prerequisite: 90 Credits

PSY 600 - Educational Psychology and Multimedia Learning

The Educational Psychology and Multimedia Learning course aims to analyze the cognitive, metacognitive, emotional, motivational, and relational processes involved in multimedia learning and their role in developing learners' knowledge, skills, and attitudes. Adopting a developmental and educational psychology perspective, the peculiarities of learning and teaching through information and communication technologies (ICT) will be highlighted, along with practical approaches and strategies in various educational contexts.

PSY 610 - Machine Epistemology

The "machine" since antiquity has been at the center of history, from the earliest mythical times of *mechanè* (cf. *deus ex machina*) when it was a device for acting beyond the nature of things, up to the origin of the classical world, from which it derives, and not only etymologically, the engine and engineering in general. In recent times, machines have undergone profound conceptual transformations: from the machine of motion (mechanical) to the machine of changes (technological, energetic) to the machine of information and virtuality. This course explores the boundaries between technology and society, between science and art, within the context of culture, which encompasses the totality of our experiences.

PSY 620 - Social Psychology: Counseling Techniques for Education

This course examines the short- and medium-term effects of college. It addresses the problems of everyday life in the classroom. In this place (through the construction of routines and rules of conduct), teachers and pupils negotiate and define the primary coordinates of educational dynamics. Recent experimental research illustrating the constructive function of social interactions in acquiring individual skills is presented.

PSY 650 - Clinical Psychology

The course addresses risk factors and pathogenetic mechanisms of mental and psychosomatic illnesses and presents models of prevention, diagnosis, counseling, and psychological treatment up to the evaluation of intervention effectiveness. This approach meets a need for training based on scientifically valid models (evidence-based). It includes health psychology and emotional and psychophysiological regulation for promoting and maintaining a state of psychophysical health and well-being (including pain control), not just disease-free.



14.3.1.14 Sociology

SOC 100 - Principles in Sociology (GER)

This course examines the theories and ideas that underpin sociological analysis. The discipline's origins are explored in depth by studying the work of some of the most influential Western sociologists. The students will learn to utilize the essential sociological tools for analysis and research, thereby familiarizing themselves with the primary sociological concepts and definitions.

SOC 110 - Diversity and Social Justice (G)

The course covers the scope of oppression, exploring a mix of short personal and theoretical essays and entries designed to challenge students to take action to end oppressive behavior and affirm diversity and racial justice.

SOC 120 - Culture, Consumption, and the Cities (GER)

This course examines the development of consumer culture and the emergence of consumer society. It focuses on developed Western societies and analyzes consumer culture in developing countries. It examines the primary shifts in industries and cities, as well as the social implications of materialism and consumerism.

SOC 130 - Technology, Values, and Society (GER)

The idea behind this course is to understand the reach of contemporary technology, and we need to focus on the role values play. We are immersed in technology. We live in a space that is half social and half technological. Technology inevitably influences society, culture, and values in such a situation. Suppose technology, values, and politics are the core elements of a techno-ethical discourse. In that case, the social sciences can play a vital role in understanding the interactions among the various aspects of that discourse.

SOC 200 - Sociology of Digital Contexts

Millions of people inform and interact with each other through the Internet. Everyone participates, in their way, in the networking of news and the transformation of these communication and socialization tools. Blogs, wikis, and social networks are, above all, tools of social relations. Thus, the participatory web forces a profound rethinking of the classical concepts of the sociology of communication. The course provides an in-depth analysis of the tools and platforms familiar to the general public, ranging from Facebook to YouTube. It examines the ethical and social consequences of the use of new technologies.

SOC 210 - Fashion Product Communication

The course focuses on the strategy and execution of effective messages to promote products in the fashion industry. Students learn to develop integrated communication plans that incorporate advertising, public relations, digital marketing, and event management.

SOC 220 - Socio-Psychological Foundations of Digital Communities

The course aims to provide the theoretical tools for understanding and intervening in digital communities. This is fundamental to understanding the mechanisms that regulate the self within social groups and how psychological processes related to the self and groups are activated in digital contexts. The first part of the course will delve into the realm of digital systems, examining the psychological processes that can occur in online communities at the interpersonal and intra-group levels. The second part of the course will present psychological theories central to understanding groups. Finally, the third part will consider the inter-group psychological processes in online communities. Upon completion, the student should be able to understand the dynamics that occur in online communities at the interpersonal, intra-group, and inter-group levels and actively participate in such contexts to promote social well-being.

SOC 230 - Elements of Journalistic Communication I

The course explores the essential foundations of journalistic practice. Students acquire research, writing, and presenting news skills, learning to identify and use reliable sources. The course also introduces the structure of news, journalistic ethics, and interview techniques.

Credits: 2 CH

SOC 250 - Society and Digital Educational Contexts

This course explores the methodological and didactic skills necessary to analyze, evaluate, and design an educational context in which integrating digital technologies can generate a learning model that is intersubjectively considered effective and sustainable. The course will delve into issues that may seem, at first, marginal. Conversely, the course will describe and explain how these issues are fundamental to understanding the complexity of our interaction with technologies (digital and otherwise). It will analyze how reducing the study and reflection related to digital education contexts is impossible without a more comprehensive update of a learner's skills.

SOC 300 - Sociology of Media and Communication (GER)

This course rereads classical theories in light of the digital revolution and seeks to answer the question: Does mass media manipulate public opinion? In what ways? With the digital shift, are we witnessing the construction of new forms of propaganda? How do we read phenomena such as fake news, echo chambers, or the polarization of



online audiences? The course addresses these questions by identifying and analyzing the various theories that have accompanied the development and emergence of mass communications, and reevaluating their conceptual tools in light of the digital revolution of recent years. It also describes the significant transformations that affect the media's power to construct social reality vis-à-vis the audience.

SOC 330 - Elements of Journalistic Communication II

The course deepens the journalistic skills acquired in the first level. Students focus on in-depth research and critical analysis of sources, developing advanced journalistic writing skills for various formats and platforms. The program includes learning editing and revision techniques, as well as exploring ethics and journalistic responsibility.

Credits: 2 CH

SOC 340 - Psychology and Sociology of Color Applied to Design

The psychological and emotional aspects of color in fashion and marketing, communicative aspects, and sociological and psychological dimensions. The implications of cultural differences in the use and aesthetics of color. Communication strategies and social behaviors for the establishment of iconic colors in fashion.

Credits: 2 CH

SOC 350 - Digital Communities: Educational and Formative Elements

The primary objective of this course is to identify the essential elements necessary for enhancing digital learning and to equip students with the skills required to implement them. The course will focus on the more disadvantaged sections of society, their challenges, and solutions that will allow them to develop and expand their digital skills. The goal is to promote social and inclusive growth while also facilitating digital transition paths. Digital inclusion, encompassing the design, implementation, and dissemination of literacy initiatives, as well as the promotion of digital literacy methods and activities, will be studied as objectives for achieving this goal.

SOC 360 - Media Phenomenology

Traditional media. Analysis of contemporary trends driving the digitization process. Communication tools and applications in modern art. Critical analysis of the relationship between production and creativity. Technical language and analytical categories applicable to the media.

SOC 370 - Corporate and Institutional Communication

This course will provide students with the technical and informational basis required to define an institutional or corporate communication process based on and in line with the most up-to-date practices. Beginning with a historical overview of various communication scenarios, the topics covered identify multiple stages of the communication process, content, and target audiences.

SOC 380 - Phenomenology of contemporary arts

This module examines the relationships between the artist and the spectator, the artist and the exhibition space, the exhibition, and the artist and the curator. These relationships have been redefined from the 20th century to the present day in a creative and complex "relational" phenomenology, prompted and driven by issues such as the meaning of authorship, the fetishisation of the work-object, new relationships with institutions and the market, and the social role of art.

SOC 450 - Multimedia Communication

The course integrates the study of various media forms to convey information and messages. Students explore the use of text, images, audio, and video across digital and traditional platforms. The course covers strategies for multimedia storytelling, production and editing of digital content, and the management of online communication platforms.

Credits: 4 CH

SOC 600 - Sociology of Digital Media

This is an advanced course for graduate students. It will provide students with a rigorous introduction to the sociological study of digital media by exploring the social, cultural, and educational implications of digital media technologies in contemporary society. The course will identify and examine the theoretical and methodological issues and social conditions that underpin them, arising when sociological techniques are used to investigate the ever-growing influence of digital media in daily life. Specific topics will include, but not be limited to, the sociological theories and concepts relevant to the study of digital media, analyses of the social impacts of digital media, the role of digital media in educational settings and on social institutions, the influence of digital media on individual and collective identities, the role of digital media on activism, political participation and social change and, the ethical responsibilities of digital media users and content creators.

SOC 610 - Digital Innovation and New Welfare

The course explores the transformation of welfare as society navigates the digital transition. Welfare is a vital and contentious sector that focuses on delivering services to individuals. It must be protected from some of the logic that characterizes the digital age. Innovations are rapidly entering everyday life, transforming how services are utilized and shaping people's expectations of them.



SOC 630 - Sociological Survey

This course examines a wide range of classical sociological theorists. The main task will be to make sociological theory relevant to understanding and appreciating human society. More specifically, the main goal of the course is to help students develop a way of looking at past and contemporary issues "sociologically" from a structural rather than an individual perspective. In doing so, we will discuss theory as a tool for organizing existing knowledge and generating "new" knowledge. We will seek to understand each theorist within their own time so that we can appreciate the specific social and historical contexts that gave rise to their particular forms of theorizing. A recurring theme throughout the course is the complex relationship between ideology, social order, and social change.

14.3.2 College of International Business

14.3.2.1 Business

BUS 110 - Introduction to Business (GER)

This course provides an overview of the modern business environment and the critical managerial competencies necessary to manage complex, innovative, and rapidly changing organizations. Typical topics of this course cover Business and sustainability, the evolution of business, entrepreneurs, managers and employees, multinationals and the global environment of business, business ethics and the atmosphere of business, leadership, influence, and communication in business, motivating and managing people and groups in business organizations, the structure, and culture of a business organization, information technology, and e-commerce, marketing, and product development, sales, distributions and customer relationship management, distributions management, operations management, HRM management, general concepts on accounting and finance.

BUS 140 - Introduction to Accounting

This course introduces students to the fundamental concepts of accounting. The course material covers essential topics, including sustainability, accounting, business, business processes, accounting information, operating processes, planning activities, recording and evaluating functional activities, the conversion process, an introduction to financial statements, and capital budgeting concepts.

BUS 200 - Financial Accounting

In this course, students are trained to prepare and analyze financial statements, applying specific accounting principles and criteria. The course covers all the critical relevant aspects of the accounting process. Such as principles and concepts, the accounting equation, the financial statements, transaction analysis, double-entry accounting, recording transactions, the trial balance, using accrual accounting to measure income, cash-basis accounting, preparing the financial statements, internal control & cash, ethics, sustainability, and accounting, short-term Long-term investments, liability and equity, financial statement analysis, time value of money, generally accepted accounting principles (GAAP), and the IAS IFRS.

BUS 220 - Principles of Sustainable Management

This course introduces the students to a set of management and sustainability principles, aiming to develop a sustainability-oriented mindset for future leaders and business managers. The course covers essential related topics, including integrating sustainability into economics, assigning a value to the planet, and understanding the value that sustainability management aims to create for people, the world, customers, and global corporate shareholders and stakeholders. The course also introduces the basic concepts of sustainability management, including ethics, corporate governance, corporate social responsibility, and legal and regulatory requirements. It also covers other central management themes such as planning, organizing, leading, and controlling.

BUS 230 - Green Business Strategy

This course examines the long-term economic, political, marketing, social, and environmental benefits that a green business strategy can generate for companies and all their stakeholders. It also explains how to implement the plan to achieve long-term sustainable results and create durable competitive advantages. Typical topics include natural drivers of the green wave, greening as a commitment, core competence, competitive environmental strategies, eco-efficiency, eco-branding, environmental cost leadership, sustainable value innovation, green design, and beyond.

BUS 240 - Human Resources Management (G)

One of the most critical competitive advantages and sustainability drivers of all organizations is represented by efficient, knowledgeable, and highly motivated human resources. This course introduces students to the core competencies of managers, enabling them to develop into excellent human resources managers and achieve challenging corporate goals with their teams. The course also addresses the critical theories and best practices in employee-management relationships and labor unions-management negotiations. Key topics include staffing and organization, developing human resources, and managing and compensating human resources.

BUS 250 - Principles of Finance



This introductory finance course aims to introduce students to the fundamental concepts, theories, and practices of financial management and the financial sector, encompassing money, banking, and financial markets. Emphasis will be placed on the theoretical models as well as the practical problems related to banking and financial markets, financial statements analysis, financial management, taxes, cash management, working capital management, time value of money, capital budgeting decisions, choosing a discount rate, using economic planning models for valuation, introduction to portfolio analysis and the capital asset pricing model, using SML to measure investment performance, security, stock, and bond valuation, capital structure and dividend policy, option, and option valuation.

BUS 260 - Finance with a Historical and Moral Perspective

The course aims to give students a basic set of concepts, methodological tools, and knowledge in finance to understand the primary causes of financial crises from a historical and moral perspective. The course is divided into modules and includes selected case studies, covering topics such as economic history, introduction to basic financial instruments, essential microeconomics for finance, including information, incentive theory, game theory, principal-agent issues, mechanism design, and the nature of the current economic crisis, as well as case studies.

BUS 270 - Principles of Marketing

This course introduces the students to the principles of marketing management. It provides them with a comprehensive understanding of the fundamental theories, strategies, policies, tactics, and best practices for successfully managing a marketing function in a modern business organization. Key topics of the course include defining marketing and the marketing process, creating and capturing customer value, company and marketing strategy, understanding the marketplace and consumers, designing a customer-driven marketing strategy and marketing mix, online marketing, global marketing, marketing ethics, sustainability, and social responsibility.

BUS 275 - Fashion Marketing

The course provides an in-depth understanding of marketing strategies and techniques specific to the fashion industry. It covers marketing fundamentals, consumer behavior, and brand and product management. Students learn to develop marketing plans that utilize promotion, advertising, and digital marketing, as well as manage distribution and retailing, including e-commerce. The course also emphasizes the importance of ethics and sustainability in the fashion marketing industry.

BUS 280 - Business Management and Digital Application

The course aims to provide students with practical knowledge and skills to help them navigate the digital business landscape. The course identifies and presents the fundamental management principles and decisions required by organizations transitioning to digital companies and considers how these decisions can be made. The course core topics covered include:

Introduction to Digital Business and E-business; E-commerce business models; Macro Environment of Digital Business; Digital Business technology platforms; Digital Business strategy; Digital supply chain management; E-commerce and freight distribution; Innovative urban freight transport; Digital Marketing; Introduction to Big Data Analytics; Managing digital business transformation.

BUS 285 - Fashion Brand Management

The course focuses on the strategies and skills necessary to manage a brand successfully in the fashion industry. Students study brand identity, market positioning, and how to differentiate themselves from the competition. Marketing and communication strategies tailored to the fashion sector are examined, encompassing digital marketing and social media.

BUS 287 - Fashion Brand Management I

Definition of brand identity as a strategic lever for the success of the fashion product and the brand. Distinctive features of the brand include verbal and iconic branding, interaction between the consumer and the brand, brand equity, brand awareness, brand loyalty, and co-branding. Process analysis. Analysis of sampling and production costs. Compilation of a basic item is an essential list of materials and a definition of the most suitable mark-up margin for the target and the product type.

BUS 290 - Promotion and Advertising

This course addresses promotion and advertising, which are critical to successful product and brand positioning strategies. Students learn to formulate a promotional mix strategy by discussing recent advertising effectiveness, budgeting, media selection, and advertisement scheduling. Other vital topics include integrated marketing communication, public relations, media advertising, direct marketing, sales promotion, internet advertising, the creative process, copywriting, and ethics and sustainability.

BUS 295 - Advertising, Communication, and Cultural Marketing

Advertising, communication, and marketing strategies applied to cultural products. How to create and use effective market strategies to increase the use of cultural products. New ways of promoting cultural products to monetize and make art become a sector that brings wealth to the local area. How can the credibility and reputation of a cultural event be built by relating to the target audience and creating value in the promotion process?



BUS 300 - Visual Merchandising

This course outlines the principles of visual merchandising and their application, experimentation, and evaluation. The course discussions will cover topics such as the role of a visual merchandiser, store design, window displays, and in-store visual merchandising. The students are exposed to the impact of harmony, color, and arrangement on the effectiveness of merchandising, as well as the role of sustainability in modern marketing and merchandising strategies.

BUS 310 - Consumer Behavior

This course analyzes the key factors that influence consumer purchasing behavior. Special attention will be placed on the managerial implications that consumer behavior studies have on market strategies and marketing programs. Key topics of the course include an introduction to the consumer research process; market segmentation, consumer motivation, personality, and consumer behavior; consumer perception; consumer learning, consumer attitude formation, and change; communication and consumer behavior; the influence of culture and subcultures on consumer behavior, diffusion of innovations, consumers social responsibility, sustainability, and green marketing.

BUS 315 - Communication of Fashion Products I

Glossary and tools for understanding communication techniques. Communication mix. Analysis of the advertisement: structure and contents. The advertising narrative. Genesis of the fashion product, socio-economic processes and dynamics, and distribution.

BUS 320 - Marketing Research Methods

The course aims to teach students the techniques and research methods used in marketing. Students will learn to collect, analyze, and use available information to conduct practical market research projects. Key topics of the course will include the definition of the problem, research design, creation of the research plan, selection of research tools, sampling methods, qualitative and quantitative research methods, measurement process, data collection, and presentation of research results. The focus will also be on research for value creation and sustainability-related innovation.

BUS 330 - Managerial Accounting

The course explores how accounting creates vital information for the management process (planning, control, and decision-making). It analyzes critical themes in detail, such as cost-volume-profit relationships, break-even analysis, job-order costing, activity-based costing, process costing, cost behavior: analysis and use, profit planning, standard costs, flexible budgets and overhead analysis, capital budgeting decisions, full costing, and direct costing systems, and the relationship between price, profit, and sustainability.

BUS 340 - E-Business in the Digital Age

This course examines the impact of information and communication technology (ICT) and e-business environments on the modern economy. It explores how these new e-business technologies have significantly changed and continue to transform organizations and their clients. It discusses, in other words, the practical uses of this application in the business world. Key topics include e-business and e-commerce, e-business infrastructure, e-environment, e-business strategy, application, and sustainability. Other essential course topics are organizational strategy, online marketing, e-business entrepreneurship, and the competitive advantage of online systems for value creation.

BUS 350 - Business Strategies

The course introduces concepts and analytical techniques for creating a sustainable advantage in complex, competitive environments. The perspective adopted for this course is that of the top manager responsible for the firm's performance or a business unit within the firm. Such a manager needs to understand the basis for the firm's current version and identify those changes (inside or outside the firm) that are most likely to affect future performance adversely or provide opportunities for the firm to improve its performance. The manager must then utilize the firm's resources to formulate and implement strategies that enable the company to compete successfully in its new environment. The strategy must define the scope of the firm's activities, the logic through which these actions result in better performance, and what it is about the firm that enables it to carry out those activities more effectively than its competitors. A solid understanding of strategy is vital for top managers and external consultants, auditors, financial analysts, and bankers to evaluate and value other firms.

BUS 355 - Communication and Inside Marketing

Definition of inside marketing and the importance of the internal team in companies with customers in the B2C logic. Employee satisfaction is a lever for developing more profitable, customer-centric, and market-oriented activities. Strategies to improve the relationship between the customer and the business team. Internal sharing of the company's mission, services, and products to generate benefits that also reach outside.

BUS 360 - Economics and International Corporate Crisis (G)

This course examines the theories, concepts, and best practices of international business and multinational organizations. It introduced students to vital related themes, such as the world's marketplaces and international



trade, as well as legal, technological, and political forces in the global business environment that affect sustainability and business growth. This course is focused on corporate crises. Infact, recent cases of bankruptcy of large companies have highlighted the often international nature of the crisis and reorganization processes of specific business complexes, stimulating reflection on the need to configure not national but global responses to a phenomenon, such as business crisis, which often cannot be circumscribed to the narrow confines of individual countries. The course aims to analyze the phenomenon of business crisis at the international level. An international business crisis refers to the situation in which a company, especially one that operates on a global scale, finds itself in financial, economic, and managerial difficulties, thereby affecting its stability and competitiveness. This can manifest itself through a loss of profitability, difficulties in generating cash flow, or a reduction in the ability to meet contractual obligations. The course aims to contribute to the knowledge of management tools for crisis and turnaround processes implemented in an international system, proposing an evaluation of them in terms of efficiency from both ex ante and ex post perspectives.

BUS 365 - Communication of Fashion Products II

Social media management is an integral part of a comprehensive digital marketing strategy. Analysis and understanding of communication tools. Creativity and objectives.

BUS 370 - Services Marketing

This course introduces students to the theories, concepts, and best practices of service marketing and service management. The module provides students with a comprehensive understanding of the importance of services as critical drivers of the modern economic system. Today, services are responsible for creating a substantial majority of new jobs. Additionally, the service industry is becoming increasingly competitive within the global market. The module highlights the differences between the service industry and manufacturing businesses. The module's ultimate objective is to teach students how to develop successful marketing strategies and techniques for service organizations. Key topics of the course include understanding services, managing services, focusing on customers, planning and working relationships, the marketing mix in the service industry, sustainability, and the service industry itself.

BUS 375 - Fashion Digital Marketing

The current digital transformation and its evolution within the fashion sector. Opportunities for recognizing megatrends and achieving corporate business objectives (turnover, loyalty, and awareness). Management of fashion digital marketing and levers that can be used individually or in total synergy. Social media strategy and online advertising, starting from SEO and content analysis.

BUS 380 - Public Accounting

The course aims to provide the cognitive and interpretive tools necessary for understanding the dynamics of accounting in the public sector. The student will gain knowledge of general budget laws, understand the associated processes, and learn how to analyze information from various sources.

BUS 387 - Fashion Brand Management II

New marketing and positioning strategies, from retro marketing to applying classic persuasive levers (limited edition and exploitation of market niches). Understanding distribution. Implementing digital communication tactics. Approaching buying and merchandising logics within the fashion sector. Analysis of these new strategies regarding the pandemic and its consequences.

BUS 390 - Business Analysis and Valuation

This course analyzes financial information primarily derived from entities' financial reports. Fundamental analysis techniques are examined in detail, emphasizing their application to equity (share) valuation decisions. The course comprises three related parts. Part one outlines the four basic steps in the fundamental analysis framework: business analysis, accounting analysis, financial analysis, and prospective analysis. The next part combines these skills to address the question of valuation. At the same time, the final section of the course applies the skills in various contexts, including credit analysis, security analysis, mergers and acquisitions, and financial policy decisions.

BUS 395 - Fashion Markets and Business Positioning

Analysis of the different fashion sectors. The changes in the fashion distribution system from the nineties to today and the impact on the sector's structure, performance, and indicators. The brand today: an indivisible mix of product, creativity, services, and sales environment. Development of mono-brand distribution strategies exercised by major luxury brands and beyond. The experiential charge of retail excels over manufacturing by creating new relationships. The distribution and disposition of the markets are fundamental elements for understanding the evolution of the fashion industry. New skills and analysis of new roles. Overcoming the division between producers and figures that deal with positioning.

BUS 400 - Social Media Management

This course will explore social media from a public relations perspective, helping us understand how our roles as strategic communicators have evolved. You will learn to develop a social media strategy, create content, and



measure meaningful results to reach brand goals and key audiences. Social media changes every day. As a result, the course content may also change, enabling us to address and analyze developments across the industry. This course is centered on you and your needs. As such, the course will provide the opportunity for hands-on learning and real-world applications to help you gain experience and build a robust portfolio that showcases your social media and strategic thinking skills.

BUS 405 - International Trade and Finance

This course surveys international economics, with a specialization in open-economy macroeconomics. It will specifically reference global monetary policy and international financial market architecture. Topics include the structure of interglobular markets, the role of central banks, exchange-rate systems, the determination of the balance of payments and exchange rates, macroeconomics of open economies, the International Monetary Fund, and financial crises.

BUS 407 - Fashion Start-Up Management

How to start a business project in the fashion sector. Main business models in the industry sector. Principles of modern entrepreneurship. Development of a winning start-up strategy and an action plan for the launch of a business project.

BUS 410 - Financial Reporting and Strategic Cost Analysis

The course involves a strategic cost analysis to enhance the company's positioning strategy. This can be achieved by thoroughly understanding which activities and costs support an organization's strategic position and which activities and expenses are weak or have no impact.

BUS 415 - International Accounting and Reporting

The course aims to contextualize and develop the key aspects of preparing financial statements by international accounting standards, with a particular focus on comparing national and international accounting practices. It is in the area of business administration disciplines that knowledge is broadened and deepened, building upon the foundations acquired in business administration, accounting, and financial reporting.

BUS 420 - Knowledge and Information Management

The course introduces basic concepts and ideas on acquiring, creating, and externalizing knowledge in modern organizations. The primary objective of the course is to enable students to gain a critical understanding of knowledge as the engine of the organization's unique strategic skills, learn to measure knowledge resources, develop analytical thinking when investing in knowledge resources, and apply econometrics more effectively to understand the impact of business knowledge on performance. This course explores various aspects of knowledge management, including taxonomies of knowledge, the SECI model and its applications, knowledge-driven value creation, polarity management, and learning organizations.

BUS 425 - Production Innovation and Technology Management

The course aims to develop students' conceptual knowledge and practical skills in managing technological innovation through the various stages of the innovation process. It analyzes how small and large businesses can compete in competitive markets through technology and innovation management. It will also focus on how small and large companies can identify market needs and commercialize innovations. The course emphasizes the role of social media and social networks in developing, guiding, and managing innovations.

BUS 430 - Business Logic and Organization

The course prepares students to address the management and organizational aspects specific to the fashion industry. Topics covered include business strategic planning, human resource management, marketing, and communication within the fashion context. Students learn to develop skills in managing the product lifecycle, optimizing the supply chain, and managing the financial operations of fashion companies.

Credits: 2 CH

BUS 435 - Strategic Business Management in an International Context

This course focuses on the strategic challenges that companies face in competing in the global economy. A company's strategy is its theory of gaining a competitive advantage and competing successfully in the market. Strategic management is the process by which managers, especially executives, develop and implement a strategy. Our goal is to gain a deeper understanding of the most fundamental question in the strategic management of the sector: What determines the success or failure of companies?

BUS 440 - Corporate Strategies for Environmental and Social Responsibility (G)

This course explores the growing trend and unique opportunities generated by developing an "Environmentally-conscious management" and a strong "corporate social responsibility" approach in business organizations. These have traditionally been viewed as necessary. Many firms are learning the lesson, considering environmental and social issues as a great opportunity, and embracing socially responsible behavior as a competitive strategy. In this course, students will explore the practices of leading companies in areas such as fair wages, privacy concerns, affirmative action, sexual harassment, employee rights, worker safety, consumer safety, animal testing, human rights, and environmental considerations. The course covers traditional business strategy topics, as well as new



and emerging environmental and social responsibility strategies. Particular attention is paid to understanding how these activities provide a competitive advantage in the marketplace.

BUS 445 - Financial Markets and Institutions

This course aims to give participants a general understanding of the functions performed by financial markets and intermediaries within the economic system.

BUS 450 - Management and Entrepreneurship

This course explores and describes the development of new ventures by studying critical theories from sociology, psychology, and economics. Its particular focus is on international entrepreneurship, financing, the transition of the family business, and sustaining firm growth. The courses require students to complete several operational activities, which include, among other deliverables, submitting written assignments, conducting case analyses, developing a business plan, participating in an interview and report about an entrepreneur, and taking a written examination; students will balance entrepreneurship theories with practical applications.

BUS 455 - Leadership and Organizational Behavior

The course examines leadership and organizational behavior, focusing on critical skills, particularly in today's increasingly globalized and competitive economic environment. It explores people in organizations, focusing on managing and leading practices that influence employees' and teams' attitudes, motivation, behaviors, and performance. The course content is primarily derived from contemporary theory, research, and training in the field of organizational behavior and management.

BUS 460 - Operations Management

The course introduces the student to the theories and practices of operations management in modern and innovative organizations. It explores key concepts and topics related to manufacturing and operations process efficiency and productivity, which can significantly increase companies' value-creation strategies. Specific focus is dedicated to the following ideas and practices: competitiveness, strategy, and productivity, forecasting, system design, product and service design, strategic capacity planning, process selection, and facilities layout, location planning and analysis, quality management, quality control, supply chain management, inventory management, and scheduling, aggregate planning, MRP and ERP, JIT and Lean Operations, project management.

BUS 465 - Supply Chain Management

The course explains the cross-functional integration of key business processes within the company and through the network of companies that comprise the supply chain. The challenge is to implement this integration successfully. The distinction between logistics and supply chain management is clarified, and a framework for supply chain management is presented. One session will be devoted to each of the eight supply chain processes, as well as topics such as the management components of supply chain management, electronically connecting the die, integrating the supply chain strategy with the business strategy, mapping the supply chain, supply chain metrics; develop and implement partnerships in the supply chain; and, implementing supply chain management.

BUS 470 - Global Risk Management

Today's world is rapidly changing, and uncertainty affects organizations of all sizes and geographical locations. Managing companies in this turbulent and challenging environment is complex, requiring managers to develop strong capabilities and competencies in effective risk management and sustainability management. This course helps students and future managers master these skills through comprehensive training on best practice risk management and enterprise risk management frameworks. The course uses a case study approach supplemented by readings and lectures.

BUS 475 - Cross-Cultural Human Resources Management

This course presents a problem-solving and decision-making approach to international human resource management, exploring the complexities of managing global or cross-cultural organizations. This course examines the challenges and opportunities presented by cultural differences. It builds on the impact of functional management disciplines, such as marketing, finance, control, personnel strategy, organizational behavior, and negotiation of cross-cultural approaches. Specific topics include the globalization of HRM, creating an international organization, international HRM and culture, global employment law, industrial relations, sustainability, international ethics, global talent management, staffing, training, management development, and compensation in multinational enterprises, as well as international employee performance management and cross-cultural organization: the multicultural model.

BUS 480 - Capital Markets and Risk Management

This course is designed for individuals interested in pursuing a career in fund management, bond research, or equity research. Students will learn in detail the critical theories, concepts, and practices underlying the operations undertaken in financial markets. A particular focus is dedicated in this course to the following topics: the structure of financial markets, the money markets, the bond markets, the stock market, the foreign exchange market, the derivative markets, the structure of commodity markets, the energy markets, interest immunization, the covering of the term structure of interest rates, valuation models for bonds, risk assessment, and mitigation, expected



returns and portfolio management, scenario analysis, decision trees, and simulations, Value at Risk (VAR), natural option, risk management: profiling and hedging, risk management and sustainability.

BUS 485 - International Marketing Organization

The course focuses on the conceptual framework for international marketing and the business environment (economic, socio-cultural, political, legal, and regulatory) in which global companies must operate. It provides the student with the knowledge and tools for assessing and analyzing international market opportunities and threats, as well as the ability to formulate marketing strategies and programs with a global perspective. It presents the interplay of dynamic driving forces in the global business environment, the rapid economic integration of the world, and how these factors impact the formulation and implementation of international marketing strategies.

BUS 487 - Fashion Brand Management III

This course delves into comprehensive strategies for fashion brand positioning, management, and development. It integrates key areas such as marketing, communication, digitalization, trend analysis, sustainability, retail management, licensing, internationalization, and innovation. The curriculum emphasizes case studies, project work, and practical applications relevant to today's global fashion landscape.

BUS 495 - Senior Project

The senior project may take many forms: it may be a group project to pursue an identifiable problem with a faculty sponsor or to choose a topic for critical review.

Prerequisite: 90 credits.

Credits: 6 CH

BUS 555 - Advanced Accounting

This course enables students to gain a comprehensive understanding of accounting concepts, interpret and prepare financial statements, and apply the learned methods to analyze and resolve common business problems. Typical topics covered in the course include financial reporting framework (IFRS IAS and GAAP), introduction to financial statements and financial reporting, the accounting equation, transaction analysis, debit credit transaction, accrual accounting, assets and asset valuation, taxation, debt, ratio, and financial analysis, cash flow analysis, off-balance sheet assets and liabilities, pensions, stock compensation, and other employee benefits, global operations and group accounting, income preparation and adjusting entries, closing entries, and financial statements preparation and analysis, internal control and cash, short-term investments and receivables, inventory and cost of goods sold, plant assets and intangibles, liabilities, stockholders equity, long-term investments, and international operations, the statement of cash flows, introduction to the time value of money, balancing accounting objectives, sustainable goals, and the balanced scorecard.

BUS 560 - Corporate Finance

This course provides an overview of the fundamental concepts and tools for financial management in a business firm. It will also examine the role of the financial manager in the corporate world, as well as the critical topics of financial management and corporate finance. Typical topics covered in the course include the forms of business organizations, the goals of financial management, the agency problem, the firm's corporate governance, financial markets, and the corporation. All essential topics will address the analysis of the financial statements (ratio and cash flow analyses), the Du Pont Model, the Modigliani-Miller Model, the Long-term financial planning and growth, time value of money, discounted cash flow valuation, interest rates, and bond valuation, stock valuation, capital budgeting, risk, and returns and the security market line, options, cost of capital (WACC), CAPM, APM, IPOs, new equity sales, rights, dilution, financial leverage, and capital structure policy, dividends and dividend policy, short-term finance and planning, cash and liquidity management, credit, inventory, and working capital management, some essential elements of international finance and financial engineering, leasing, option valuation, and crucial aspects on M&A, managing shareholders' value maximization with particular attention to sustainability issues.

BUS 565 - Quantitative Methods for Decision-Making

This course will provide students with robust tools and metrics to make informed, quality managerial and personal decisions. Since uncertainty, multiple objectives, and complexity make many decisions difficult, managers must rely on effectively using various available information, then analyze this data and create realistic models and forecasts regarding current and future events. In addition to studying standard statistical techniques, multiple regression, cluster analysis, factor analysis, and cost-benefit analysis will be introduced, along with game theory, risk analysis, and Bayesian statistics. This course will build the student's repertoire of robust tools to make informed decisions for present and future problems, evaluate potential risks and trade-offs, and reasonably predict competitors' actions. Typical top course topics preclude basic calculus concepts, descriptive and inferential statistics, decision-making under uncertainty, risk and uncertainty, scenario planning, decision trees, influence diagrams, a simulation application, decisions involving multiple objectives, resource allocation, sustainability, and negotiation problems.



BUS 570 - Ethics, Law, and Business

This course provides students with a solid foundation in law, business ethics, sustainability, and social responsibility. It addresses introductory topics such as Common Law, Statutory Law, Administrative Law, Constitutional Law, Crime, Dispute Resolution, and International Law. It focuses on specific legal issues, including contracts, commercial transactions, agency and employment law, business organizations' legal vehicles, government regulations, and property and cyber law. Special attention is given to studying business ethics, law, and corporate social responsibility, with a strong focus on sustainability issues and environmentally responsible economic growth. The course will also address the responsibilities of all stakeholders involved in the corporate world, with an emphasis on law and sustainability.

BUS 575 - Marketing Strategy and Implementation

This course aims to introduce MBA students to the principles of marketing management, develop their understanding of the concepts, principles, tools, and techniques, and highlight current issues in the marketing field. The course will equip students with the analytical tools to aid in marketing decision-making and to understand marketing as a managerial activity, as well as its relationship with other management functions. The course covers a general overview of essential marketing management topics such as creating and capturing customer value, customer relationship management, marketing strategy, analyzing the marketing environment, managing marketing information, consumer and business buyer behavior, segmentation, targeting and positioning, marketing mix decisions and policies, creating competitive advantages, the global marketplace, and sustainable marketing (social responsibility and ethics).

BUS 585 - Organizational Theory and Operations Management

This course introduces MBA students to organizational structures, behavioral principles, and concepts. Both theory and practical application will be addressed. In this course, students will gain a working knowledge of the impact of external factors on business decisions, particularly on the accomplishment of an organization's mission and objectives. They will also gain an understanding of various forms of ownership to determine their appropriateness relative to an organization's resources, goals, and objectives. Furthermore, the students will understand different business functions and practices, their impact on a business's successful operation, and the impact of business decisions on the external environment. The course covers Organizations and Organization Theory, Strategy, Organization Design and Effectiveness, Fundamentals of Organizational Structure, Organizational Culture and Ethical Values, Decision-Making Processes, Conflict, Power, and Politics, as well as management of people and organizations with an emphasis on sustainability.

BUS 590 - Global Economics

This more advanced economy seeks to adopt a global perspective on economic policy and analysis. The course outlines the most relevant aspects of the World Economy, including international trade, comparative advantage, absolute advantage, the production possibilities frontier, factor endowments, and the commodity composition of production. Among this course's other topics, a particular focus will be dedicated to intra-industry trade, international factor movements, tariffs, nontariff distortions to business, international trade policy, regional economic arrangements, international trade, and economic growth. The course will also focus on emerging and developing countries, national income accounting and balance of payments, international transactions, financial markets, macroeconomic policies, exchange rates, interest rates, international monetary arrangements, capital flows, global economic prosperity, and sustainability.

BUS 605 - E-Commerce

Today, the Internet and e-commerce drive a company's growth and value-creation strategies. Companies and organizations of all types and sizes systematically use the Web and e-commerce to design new relationships with their customers, suppliers, distributors, and all other stakeholders. The web strategy is becoming more critical for all companies. It will undoubtedly gain even more attention in the future due to its unique and innovative features, as well as the numerous opportunities it presents within the vast Web 2.0 framework. The course aims to challenge students to explore the impact of e-commerce on the business world from the perspectives of both Business-to-Consumer (B2C) and Business-to-Business (B2B) relationships. The course introduces students to a wide range of topics, including Introduction to e-business and e-commerce, E-commerce fundamentals, E-business infrastructure, E-environment, E-business strategy, applications, and sustainability.

BUS 610 - Business Strategy

This course provides an overview of all essential aspects of strategic management. Key topics include strategy formulation, validation, execution, and control. In this course, you will learn analytical techniques for diagnosing a business's competitive position, evaluating business strategies, and identifying and analyzing specific business options. The student will also be introduced to the three design dimensions and the different approach levels within complex organizations. These concepts and frameworks will help you learn to structure complex and unstructured problems in business strategy, providing a solid foundation for managerial decision-making. Among the most relevant topics addressed in this course are the nature of competitive advantage, corporate-level and business-



level plans, strategic leadership, strategy implementation, strategy performance control, and strategic sustainability.

BUS 612 - Entrepreneurship

The course explores entrepreneurship and the challenges of launching and managing successful startup enterprises. It focuses on the managerial implications of managing innovations and creating successful business models and unique value propositions. The course will help sharpen students' attitudes and skills in adopting an entrepreneurial mindset. During this period, students are encouraged to envision and evaluate potential start-up opportunities for their personal growth and development. They will be trained to develop a holistic vision of new startups, from a business idea to a successful enterprise. Key topics of the course include the entrepreneurial process, opportunity recognition, understanding the business model and developing a strategy, writing a business plan, managing the startup's legal, tax, and financing decisions, building the founding team, and managing a growing business, as well as corporate sustainability.

BUS 613 - Advanced Applied Finance

This advanced course explores financial engineering techniques and their application to various real-world strategies. Students taking this course are familiarized with the theory and practice of derivative markets. The course covers, in particular, the following topics: markets, players and conventions, the syndication process, cash flow engineering and forward contracts, futures, engineering simple interest rate derivatives, introduction to swap engineering, repo market strategies and financial engineering, dynamic replication methods and synthetics, mechanics of options, engineering convexity positions, options engineering and applications, pricing tools and financial engineering, fixed-income engineering, volatility engineering, credit derivatives, equity instruments. The course also addresses key concepts such as risk and return, project financing, and other advanced finance topics, including shareholders' value maximization and sustainability.

BUS 614 - International Financial Statement Analysis

This advanced accounting course introduces the student to financial statement analysis from an international perspective. Among the main topics addressed by this course are the differences and similarities in income statements, balance sheets, and cash flow statements around the world; the impact of foreign exchange rates on the financial statements of multinational corporations; the difficulty of measuring the value of employee compensation; the importance of income tax accounting and reporting; and the convergence of international standards. The course will also address sustainability concepts related to international accounting regulations and corporate growth.

BUS 615 - Money, Banking, and Financial Markets

This course covers investment banking and the broader domain of finance, including banking and financial markets. It introduces students to financial instruments, financial markets, and financial institutions. It addresses topics such as money and payment systems, monetary policy, nature and behavior of interest rates, the role of banks and the banking industry, banking, and financial markets regulations, understanding risk, money markets, bond, stock, and derivatives markets, foreign exchange, the role and policies of central banks, inflation, and monetary policy, depository institutions. The course focuses on banking, financial markets, and economic sustainability.

BUS 619 - International Corporate Governance

In recent years, due to numerous conflicts of interest and ethical problems that have negatively affected the corporate world, resulting in severe crises, companies have begun to pay closer attention to the critical role of their corporate governance organizations in ensuring sustainable growth for their institutions and stakeholders. The recent phenomenon of globalization has demonstrated both the benefits and shortcomings of a truly global economy and society. For this reason, international corporate governance principles have become a central theme of MBA students' curricula to ensure the adequate sustainability of business organizations. In this course, students will focus in particular on the following topics: international corporate governance principles, theories, processes, and code of practice; board members' roles and responsibilities; assessment of board and director performance, corporate governance rating systems; understanding the cultural aspects of different approaches to governance, corporate risk assessment, corporate social responsibility, and sustainability.

BUS 620 - Corporate Social Responsibility (G)

This course examines corporate social responsibility from the perspectives of shareholders and stakeholders. The course's central theme is based on the rationale that corporations have a reason to be sensitive to society beyond simply making a profit. Students are encouraged to analyze the impact of managerial decisions on profitability and their responsibilities towards efficiency, sustainability, employee welfare, consumers, and the well-being of the entire community. Furthermore, they are expected to evaluate how corporations should respond to the demands of shareholder activists and the media regarding corporate social responsibility concerns, globalization issues, and other challenges that potentially affect the well-being of the entire community. Further, the course will examine the best practice models of the value of codes, credos, and other normative standards developed to foster responsible corporate behavior. Key topics of the course will also be addressed, including concepts of



accountability, business ethics, sustainability, and corporate citizenship. Extensive and systematic case study analyses will be applied to support classroom discussions on this topic.

BUS 621 - Sustainable Supply Chain Management

This course covers the most relevant aspects of sustainable supply chain management in today's corporations. It addresses key topics related to sustainable supply chain management, such as building a strategic sustainability framework to analyze supply chains, designing the supply chain network, planning demand and supply in a supply chain, planning, and managing inventories in a supply chain, managing cross-functional drivers in a supply chain, sustainability, and low-cost country sourcing, product design collaboration, forecasting, distribution system design, channel management, procurement, and logistics and others. It also explores order fulfillment strategies and the impact of the Internet on distribution and back-end supply chain processes.

BUS 634 - Venture Capital and Entrepreneurship

This advanced finance and entrepreneurship course aims to meet the needs of business students who wish to pursue a career as entrepreneurs, employees in startup companies, investors, consultants, or any other role involved in the industry that invests in startup companies. Key topics of the course cover the establishment and development of ventures, financial and business planning, employee recruitment and compensation, intangible capital and intellectual property, financing the venture, the process of raising venture capital, legal and contractual aspects of raising venture capital, valuation of companies, venture capital investors and venture capital funds, business angels and private equity funds, the public offering process, mergers & acquisitions, bankruptcies and dissolution, companies' restructuring.

BUS 635 - Strategy and Governance for Cyber Risk

This course focuses on how Cyber risk strategy and governance are two expressions of threat prevention that go hand in hand. An increasing fictional interdependence characterizes it, as the effectiveness of a cyber risk management strategy derives essentially from the ability to monitor and orchestrate assets and information. Similarly, governance cannot disregard a defensive system that secures the data on which decision-makers, analysts, and administrators develop plans and procedures. Therefore, dealing with cyber risk strategy and governance in parallel means building a logical and operational infrastructure that brings together initiatives from both spheres and highlights their consequentiality.

BUS 636 - Methods and Data Analytics for Risk Assessment

The course analyzes risk identification and context analysis, which includes assets, threats, and vulnerabilities. The regulatory and quality context on information security. Privacy regulations, etc. Risk analysis: quantitative and qualitative methods of analysis. Analysis of risk variability. Descriptive and correlational analysis on risks. Inferential analysis and statistical tests on the determination of risk. Risk treatment: Weighting and mitigation. The information security policy encompasses information and controls, including governance and management of security, as well as the organization, figures, and roles within the organizational structure.

BUS 637 - Institutional Scenarios of Cyber Risk

This course will examine international interactions that shape the geopolitical and economic landscape and how these interactions impact cyber risk for both domestic and international companies. It will consider strategies to mitigate cyber risk both publicly and privately, with a particular emphasis on governments at all levels of authority.

BUS 638 - Data Protection

This course addresses the complex issue of data protection. Personal data is a valuable asset. This assertion can be understood in two senses: materially, because businesses place a significant economic interest in these data. In an ideal sense, it is not possible in a democratic state governed by the rule of law for people not to have at least minimal control over the use of data concerning them. This task can be challenging as there may also be partially legitimate interests that curtail the right to self-determination, for example, in police investigations. Data protection must ensure proportionality, that only strictly necessary personal data are collected and processed, and that the data subject has the opportunity to control and, if required, prevent, as far as possible, the processing of data concerning them.

BUS 639 - Business and Cyber Intelligence

This course will explore cyber intelligence from its origins to its current state and influence. Students will explore the full range of cyber capabilities and cyber intelligence operations and how they impact business practices and decisions today. The course will explore the impact of the cyber industry on intelligence gathering, analysis, and decision-making in business.

BUS 640 - Circular Economy and Circular Districts

This course provides an overview of key definitions and terminology in the science, technology, and management of the circular economy, as well as current emergencies related to the circular economy, and its short-term, medium-term, and long-term consequences.



BUS 641 - Circular Economy as a New Economic Paradigm

The course introduces the circular economy as a new economic system, focusing on indicators and goals that differ from the consumerist approach. It examines how the circular economy will impact organizational management and development, and identifies the need to establish business networks and clusters to manage it effectively.

BUS 642 - The Benefits of the Circular Economy on the Environment (G)

The course highlights how developing circular economy activities can enhance environmental and social conditions, thereby supporting the achievement of the Sustainable Development Goals. It identifies the need for business networks and clusters to manage the circular economy successfully and emphasizes the benefits of a different approach to waste management.

BUS 643 - The Circular Economy as a Business Model

The course examines the role of the circular economy for businesses through a business-oriented approach. Therefore, the course content will focus on how to apply the circular economy to a company's business model and how this change may or may not facilitate the company's product positioning. The role of the consumer and the possibility of transforming them into producers will also be studied. The course will also focus on the technologies available to manage circular economy systems properly.

BUS 644 - Collaboration and Circular Economy in the City

The course aims to analyze how creating an ecosystem can support the application of the circular economy from a broader perspective. Students will explore the importance of collaboration, the need for different types of actors, and the creation of a network to support efficient circular resource use by considering the city as a scope of analysis.

BUS 645 - Sustainability Strategies

The course addresses running your business sustainably, efficiently, and strategically managing your natural, financial, human, and relational resources. Doing so generates value for the company and presents an opportunity to contribute to the growth, improvement, and socio-economic development of the communities in which the company operates, as well as the actors that comprise its value chain.

BUS 646 - Energy Economics

This course examines the theory and practice related to individual and industrial demand for energy, its supply and markets, and the policies that impact each. This course will explore the various energy sectors, examining pricing factors, deregulation, energy efficiency, and public policy.

BUS 647 - Economics of Renewables and Energy-Saving Technologies

This course examines the challenges and opportunities related to implementing renewable energy projects. Students learn essential concepts, which are then integrated with available resources to investigate the real-world implications of various projects, including wind and solar energy, bioenergy, green energy, and laws and policies aimed at mitigating climate change.

BUS 648 - Web Marketing and Digital Advertising

Advertising on the Internet is a dynamic discipline that is constantly evolving. Students will explore methods for maximizing the impact of web-based advertising, incorporating appropriate market analysis strategies, design, and flexibility to target various avenues of web marketing, including social media, blogging, digital messaging, email, and search engines.

BUS 649 - Digital Communication Goals: Branding and Performance

Students will learn to construct strategically designed brands, evaluate growth opportunities, understand the implications of brand expansion and contraction, and plan to limit competitors' threats.

BUS 650 - Digital Communication Strategies

Digital messaging is critical to success in today's business environments. No industry is immune to its impacts, and to stand out, firms need to create a communication strategy that will present an exciting and compelling position. In this course, students learn how to effectively communicate using email messages, develop attractive websites that are both functional and efficient, and create impactful messages through social media, blogs, and targeted blasts.

BUS 660 - Influencer Marketing

Influencers are among the most impactful entrepreneurs in today's business landscape. Partnerships between social media users and famous brands have altered consumer behavior and created new career opportunities. This class will explore the partnerships that fostered the influencer profession and how influencers market their brands and themselves.

BUS 690 - Research and Master's Thesis

Under the approval and guidance of a faculty member, students will prepare a thesis.

Prerequisite: 30 Credits



14.3.2.2 Economics

ECO 120 - Introduction to Economics (GER)

This course in Economics covers introductory topics on Macroeconomics and Microeconomics. These themes include, among others, utility, marginal decision-making, scarcity, opportunity cost, efficiency, supply and demand, the concept of elasticity, consumer and producer surplus, trade, GDP, GNP, fiscal policy, monetary policy, unemployment, inflation, wage and price controls, social security, welfare, national debt, interest rates, aggregate demand and supply, surplus, budget deficit, firms' production, cost and revenue, perfect competition, monopoly, monopolistic competition, oligopoly, international trade, and the analysis of the principles underlying the behavior of individual consumers and business firms. Furthermore, additional topics include problems of global trade and finance, income distribution, policies for eliminating poverty and discrimination, sustainability and environmental pollution, and the effects of various market structures on economic activity.

ECO 150 - Microeconomics: Principles of Human Action

This course introduces the students to the principles and theories of microeconomics. Topics include the economic decision of limited resource allocation affecting households and firms, demand and supply, elasticity, efficiency and equity, government actions in markets, utility and direction, preferences and choices, firms and needs, perfect competition, monopoly, monopolistic competition, oligopoly, market failure, and government, externalities, public goods and shared resources, factor markets, inequality, and uncertainty, markets for factors of production, economic inequality, uncertainty, and information demand-supply analysis, theory of markets and public policy, microeconomic problems and sustainability.

ECO 160 - Macroeconomic Theory

This course introduces students to the modern theories and policies of macroeconomics. Students study several aspects of Economics from a national, international, or global perspective. Key topics addressed in this course include international trade theory and policy, exchange rates and open-economy macroeconomics, international macroeconomic policy, macroeconomic problems, and sustainability.

ECO 180 - Cities, Culture, and the Economy

This course exposes students to social institutions or environments that characterize the rise of booming urban economies and flourishing arts and culture. It addresses the interrelations between capitalism, cities, and culture. Students will focus on the dynamics of urban development, including towns and suburbs, as well as the prosperity of metropolitan areas and current policy issues related to the political economy, culture, society, cities, and sustainability.

ECO 210 - Consumer Behavior

This course examines consumer behavior from an economic perspective, drawing on research findings that incorporate insights from psychology, sociology, and cultural factors that influence consumer decision-making. Key topics of the course are consumers in a changing world, consumer theories, the limits to choice, preference and demand, welfare and consumer behavior, the consumption function, selection under uncertainty, and sustainability.

ECO 250 - Fundamentals of Financial Economics

Financial markets: stocks, bonds, mutual funds, derivatives, financial operators, investment systems. The company is an organized system. Financial and economic aspects of business management: operating income, assets, accounts, VAT, and general accounting. Companies and their features. The company and its operating environment.

ECO 270 - Environmental Economics and Sustainable Development (G)

This course addresses critical environmental economics and sustainable development topics, providing students with a sound and thorough understanding of the most relevant and essential crisis studies and lessons learned in ecological economics and sustainable growth.

ECO 280 - Natural Resources Management

This economics course aims to expand students' knowledge of the issues associated with renewable and non-renewable resources. Special attention is dedicated to waste and recycling, sustainable development, biological diversity, environmental degradation, alternative energy sources, population and economic growth, natural resources management, and ecological ethics. Issues of optimal extraction and depletion, the effect of alternative market structures, and factors of uncertainty are addressed regarding the efficient management and allocation of these resources.

ECO 290 - Principles of Green Economy in Relationship with Natural Resources (G)

This course is a synergistic blend of the topics already explored in courses related to the green economy, biodiversity, sustainable agriculture, and zootechny. It enables students to grasp the principles of integrating the multidisciplinary sciences of natural resources with the pillars of the economic sciences as applied to the environment.



ECO 300 - Digital Economy and Marketing I

A growing share of our economy is based on digital goods and services, which form the core of the digital economy. The course introduces the economics of the digital economy, including transient market behaviors, feedback mechanisms, global impact, and international technological globalization of the digital economy. Behavioral insights will also be awarded to understand why consumers (or users) might behave differently digitally than in the physical domain.

ECO 310 - Corporate Finance

This course addresses the strategic and operational decisions that finance managers make in their corporate role as leaders and supervisors of the finance organizational function. Students will cover topics such as financial statements, taxes, cash flow, cost of capital, working capital management, risk and return, the analysis of financial statements, time value of money and capital budgeting, discounted cash flow valuation, interest rates, stock and bond valuation, NPV and other investment decisions, short-term and long-term financial policy, derivative securities and corporate finance, corporate finance, and sustainability.

ECO 320 - Global Economy

This course examines the evolution of global economic policies and events, as well as their impact on countries' relations, wealth creation, and sustainability. Key topics include Introduction: an overview of the world economy, comparative advantage, international factor movements, tariffs, international trade policy, international trade and economic growth, national income accounting and the balance of payments, international transactions and financial markets, exchange rates, money, interest rates, and price levels, macroeconomic policy and floating exchange rates, fixed exchange rates and currency unions, international monetary arrangements, capital flows, global economic interdependence, roles of the International Monetary Fund, World Bank, and World Trade Organization and debt burdens of developing countries.

ECO 330 - Public Finance

This course introduces students to public policy and its economic impact on society. Based on macroeconomic theory, it will explore public expenditure: goods and externalities, social insurance and income maintenance, a framework for tax analysis, the national revenue system, multi-government public finance, and privatization. Other essential topics include tax incentives, globalization, behavioral public economics, social insurance, welfare, and sustainability.

ECO 340 - Entrepreneurial Finance

This course aims to develop students' competencies to become successful in entrepreneurial finance. It enables the students to learn all the required steps for launching startups and new business ventures; in particular, it focuses on developing and managing business plans based on detailed and thorough economic analysis, market analysis, accounting principles, work relations, costs, taxation, and other managerial themes. Other essential course topics are purchasing firms, buyouts, valuation, real options, venture capital, angel financing, venture leasing, franchising, banking, licensing, private equity financing, government financing, sustainability, IPOs, and acquisitions.

ECO 360 - Managing Innovation

This course aims to equip students with the skills, tools, and approaches necessary for creating sustainable and prosperous innovation in the digital age. The course is multidisciplinary and built on the latest research on innovation management frameworks, lean methodologies for prototyping, additive manufacturing, and design thinking approaches. You will explore the opportunities in the digital economy and create innovation that goes beyond simply copying or reinventing a product or service by solving real societal problems, such as job creation, reducing side effects, and eliminating bottlenecks within products, models, and industries. IT frameworks will be identified to facilitate the identification, development, and creative design economically and sustainably. The course will acquire the theoretical tools for creating innovation and teach how to apply them to produce product or service innovation within a target market.

ECO 370 - International Finance

This course examines economic aspects from an international perspective. The course provides the students with theories, models, and tools to properly manage international finance transactions. The critical topics of this course are the motivation for global finance, critical issues in international business finance, international payment mechanisms and international money and banking, exchange-rate regimes, international money and bond markets, nominal rates, PPP rates, and deviations from PPP, forward contracts and forward rate agreements, futures markets, swaps, options, hedging and valuation, managing credit risk in international trade, setting the cost of global capital, international taxation of foreign investments, multinational capital budgeting and sustainability, negotiating a joint-venture contract: the NPV perspective.

ECO 390 - Managerial Accounting



Managerial accounting provides managers with the information they need to use within their organizations. It is a company's internal language for decision-making, production management, product design and pricing, marketing, and motivating and evaluating employees.

ECO 410 - Economics of Innovation

The course aims to develop an in-depth understanding of the economic processes underlying the development of innovations and their effects on the economy, society, and the environment. After a brief introduction to the concepts relevant to understanding innovation processes and their effects, the course analyzes the main economic models for analyzing innovation at the microeconomic level (i.e., at the firm level) and the territorial and industrial levels. At the end of the course, students will be able to understand the fundamental role of innovation in economic growth and sustainable development processes and have a detailed knowledge of the main concepts covered by the discipline. Will I also have basic skills in financial and economic models that explain the introduction and diffusion of innovations? Students will also understand various methods for analyzing innovation processes at both the firm and macro levels.

ECO 420 - Economics and International Corporate Crisis (G)

This course examines the theories, concepts, and best practices of international business and multinational organizations. It introduced students to vital related themes, such as the world's marketplaces and international trade, as well as legal, technological, and political forces in the global business environment that affect sustainability and business growth. This course is focused on corporate crises. Infact, recent cases of bankruptcy of large companies have highlighted the often international nature of the crisis and reorganization processes of specific business complexes, stimulating reflection on the need to configure not national but global responses to a phenomenon, such as business crisis, which often cannot be circumscribed to the narrow confines of individual countries. The course aims to analyze the phenomenon of business crisis at the international level. An international business crisis refers to the situation in which a company, particularly one that operates on a global scale, encounters financial, economic, and managerial difficulties, thereby affecting its stability and competitiveness. This can manifest itself through a loss of profitability, difficulties in generating cash flow, or a reduction in the ability to meet contractual obligations. The course aims to contribute to the knowledge of management tools for crisis and turnaround processes implemented in an international system, proposing an evaluation of them in terms of efficiency from both ex ante and ex post perspectives.

ECO 510 - Consumer Economics and Law: Legal and Economic Rules in Nutrition

The Course is divided into two modules.

The LAW MODULE is aimed at the study of issues related to the protection of consumer rights in food products and the most relevant legal aspects that, in the light of the most pertinent regulatory provisions, mark the relationship that links the circulation of this particular category of products to the protection of the individual.

The ECONOMICS MODULE aims to offer knowledge regarding the dynamics of supply and demand and to identify the elements that influence the demand and supply of goods in the food sector. In addition, the relationships between goods will be analyzed, and food consumption patterns will be examined from an evolutionary perspective.

14.3.3 College of Innovation and Intelligence

14.3.3.1 Computer Science

COM 105 - Introduction to Computer Science (GER)

This foundational course covers fundamental computing concepts, including algorithms, data structures, programming languages, and software development. Students acquire theoretical knowledge and practical programming skills to solve problems and establish a solid foundation in computer science.

COM 110 - Introduction to Artificial Intelligence and Machine Learning

This comprehensive course introduces students to the principles, algorithms, and applications of artificial intelligence (AI) and machine learning. Students will learn to develop and train machine learning models, analyze data, and explore real-world examples of AI. The course provides a strong foundation for further exploration in this exciting field.

COM 120 - Introduction to Web Design

This course offers students a comprehensive introduction to web design. Students learn the basics of HTML and create their websites using web design software. The course covers basic graphic design, programming principles, and server technology used for web design.

COM 130 - Web Services

The course provides the basic knowledge for designing and developing interactive web applications accessible from desktop and mobile terminals, characterized by moderately complex application logic. The ultimate goal is to train programmers who can produce high-quality web applications based on standard architectures commonly



used in the corporate world. Additionally, the teaching will cover data representation and interpretation in XML, given its importance in ensuring interoperability between applications. An SW application will be developed to enable the application of autonomy of judgment in the choice of implementations, critically analyzing the information acquired in the theoretical part of the teaching.

COM 140 - Programming I

This course concurs with the educational objectives of a Bachelor of Science degree in Computer Science. It aims to provide essential programming knowledge and the operation of a virtual interpreter, a prerequisite for almost all courses.

COM 150 - New Media

The course explores the interrelationships among media, computers, and telecommunications. Then, the course describes the birth of the Internet, its applications, the convergence of different media thanks to the network, and its political economy. Next, the social uses and languages of digital media: video games, cellular telephony, sound media, photography, digital cinema and TV, location-based systems, and the more recent developments in the Internet. Indeed, digital media incorporates many innovative technologies; however, the course will explore how they are utilized and how they impact knowledge transmission, behaviors, and common sense.

COM 170 - Artificial Intelligence and Machine Learning Applied to Business

The course covers advanced topics in Statistics and Machine learning, enabling you to build effective models for data analysis, inference, and prediction. It also supports decision-making, data management, and computer programming by developing algorithms suitable for the implementation and practical application of statistical methods and data analysis tools. Combine quantitative skills with business knowledge to identify new business opportunities and support management with data-driven strategies.

COM 180 - Data Analytics for Economics and Business

The course covers advanced topics in Statistics and Machine learning, enabling you to build effective models for data analysis, inference, and prediction. It also supports decision-making, data management, and computer programming by developing algorithms suitable for the implementation and practical application of statistical methods and data analysis tools. Combine quantitative skills with business knowledge to identify new business opportunities and support management with data-driven strategies.

COM 190 - Computer Network and Cloud Computing

The course studies the fundamentals of data link layer transmission technologies, shared media access and wireless transmission protocols, the TCP IP protocol suite, and the principles guiding the structuring and design of distributed applications.

COM 191 - Methodologies and Technologies for Teaching Informatics

The course aims to provide knowledge of some aspects of Computer Science as a scientific discipline and the rationale behind the need for its teaching; to foster an understanding of pedagogical aspects and theories of learning in the context of teaching Computer Science; and to develop reflective skills about the discipline, bringing out to compare students' initial ideas about the topics covered. Introduces the principal methodologies for building a Computer Science curriculum consistent with the objectives set by national guidelines and indicators. Teaching practices will be applied in the teaching and learning processes of Computer Science, utilizing digital technologies and unplugged or computerless techniques, along with activities tailored to different College levels. The relationship between Computer Science and relevant societal issues, such as secular ethics, will be recognized.

COM 200 - Introduction to Graphic Design

The role of graphic design in the fashion system. Technical tools for manipulating digital images. Photoshop: managing tools, using layers and masks, image retouching tools.

COM 210 - E-Commerce Strategies and Models

E-Commerce Strategies and Models is a course that explores the strategies and models used in e-commerce. It focuses on understanding the fundamental concepts and principles of e-commerce, including the different business models and strategies organizations employ in the digital marketplace. Students will learn about the various components of successful e-commerce ventures, such as online marketing, customer acquisition, logistics, payment systems, and security. The course also examines emerging trends and technologies shaping the e-commerce landscape. Through case studies and practical exercises, students will develop the knowledge and skills to develop effective e-commerce strategies and models for both.

COM 217 - Computer Graphics for Fashion I

The role of graphic design in the fashion system. Technical tools for manipulating digital images. Photoshop: Basic tool management, layers and masks, and image retouching tools.

COM 220 - Programming II

The course aims to delve into basic computer science concepts, mainly introducing the object-oriented programming paradigm. Thus, it seeks to refine the programming skills in the Java language learned in the



Programming I course and teach the fundamentals of object-oriented programming. In particular, the course will illustrate the fundamental abstractions for software design (classes and objects), the definition of simple data structures (lists, trees, stacks, queues) and corresponding operations, the fundamental mechanisms for fostering software reuse and modularity (inheritance, polymorphism, generic types), the specification of class invariants and handling their violations (assertions and exceptions), as well as some fundamental Java library classes. Particular emphasis will be placed on aspects of good software design, using concepts borrowed from software engineering and graphical formalisms such as UML.

COM 240 - Digital Marketing

Digital Marketing is a course that explores strategies and techniques for promoting businesses online. Students will learn about SEO, social media marketing, content creation, and digital advertising. The course emphasizes targeting specific audiences, measuring campaign success, and optimizing marketing efforts across digital platforms. By the end of the course, students will have the skills to develop effective digital marketing strategies to achieve business objectives in the online realm.

COM 241 - Social Media and Networking

The Social Media and Networking course explores the impact and strategies of social media. Students will learn about platforms, content creation, campaign management, and data analysis. By the end of the course, students will have the skills to leverage social media effectively for personal and professional purposes.

COM 242 - Mobile Application Development

Mobile Application Development is a course focusing on designing and building applications for mobile devices. Students will learn about the fundamentals of mobile app development, including user interface design, mobile programming languages, and mobile development frameworks. The course covers app architecture, data management, and integrating device features like GPS and camera. Through hands-on projects, students will gain practical experience in developing mobile apps for platforms such as iOS and Android. By the end of the course, students will have the skills to create functional and user-friendly mobile applications that can be deployed to app stores and used by a wide range of mobile device users.

COM 243 - Electronic Payment System

Mobile Application Development is a course that teaches students how to design and build applications for mobile devices. Students will learn about user interface design, programming languages, and frameworks for mobile development. Through hands-on projects, students will gain practical experience in creating mobile apps for platforms such as iOS and Android. By the end of the course, students will have acquired the skills to develop functional and user-friendly mobile applications compatible with a wide range of mobile devices.

COM 250 - Introduction to Digital Imaging and Visualization

This course covers the fundamental concepts and tools used in digital image processing and visualization. Students will learn image manipulation, editing, and design principles while gaining hands-on experience with industry-standard software. The course explores the applications of digital imaging in various fields, such as media and scientific research. By the end of the course, students will have acquired practical skills in digital imaging and visualization for creative and analytical purposes.

COM 251 - Natural Language Processing

Natural Language Processing is a course that explores computational techniques for understanding and processing human language. Students will learn about text preprocessing, language modeling, sentiment analysis, and other vital concepts. Through hands-on projects, students will gain practical experience in building language processing systems. By the end of the course, students will have the skills to apply natural language processing techniques to solve various language-related problems.

COM 252 - Computer Vision

Computer Vision is a course that explores the theory and applications of visual data analysis by computers. Students will learn about image processing, object detection, and deep learning techniques. Students will gain practical experience in developing computer vision systems through hands-on projects and assignments. By the end of the course, students will have acquired the skills to apply computer vision principles to various real-world tasks, including autonomous vehicles and medical imaging.

COM 253 - Robotics and Automation

Robotics and Automation is a course that explores the principles, technologies, and applications of robotic systems and automation processes. Students will learn about the fundamental concepts of robotics, including robot kinematics, dynamics, control systems, and sensing. The course covers robot programming, motion planning, vision, and human-robot interaction. Students will gain practical experience designing and implementing robotic systems through hands-on projects and simulations. They will learn how to program robots, integrate sensors and actuators, and develop algorithms for autonomous navigation and manipulation tasks. Through case studies and real-world examples, students will gain an understanding of the applications of robotics and automation in the manufacturing, healthcare, and logistics industries. By the end of the course, students will have acquired the skills



to design and develop robotic systems, optimize automation processes, and contribute to the advancement of robotics technology.

COM 270 - Management Information Systems

Management Information Systems is a course that explores the strategic use of technology in business organizations. Students learn about database management, system analysis, cybersecurity, and integrating technology with business processes. By the end of the course, students will have the skills to utilize information systems for effective decision-making and gain a competitive advantage in the business world.

COM 275 - Environments and Technologies for Education

The course aims to provide methodological, technological, and technical tools to develop competencies in designing and supporting the use of environments and technologies that enhance teaching and training in formal, non-formal, and informal learning settings. Particular attention will be paid to the pedagogical value and the relationship between technologies and teaching-learning processes. Skills will be acquired in the context of present and emerging digital technologies. In particular, skills will be gained for using technologies to produce digital documents and manage technological platforms.

COM 280 - Data Mining and Knowledge Discovery

The Data Mining and Knowledge Discovery course focuses on extracting meaningful patterns and insights from large datasets. Students will learn about the principles, algorithms, and techniques used in these processes. The course covers data preprocessing, association rule mining, classification, clustering, and anomaly detection. Students will gain hands-on experience with data mining tools and software and learn how to apply these techniques to real-world datasets. Through practical assignments and projects, students will learn how to analyze and interpret patterns, uncover hidden knowledge, and make informed decisions based on the insights they extract. By the end of the course, students will have acquired the skills to effectively mine and analyze data, uncover valuable insights, and leverage them to solve complex problems in various domains, including business, healthcare, and the social sciences.

COM 281 - Data Management and Warehousing

Data Management and Warehousing is a course that explores the principles and techniques for organizing and managing large volumes of data. Students will learn about database design, integration, and quality assurance. Through hands-on exercises, students will gain practical experience with database management systems. By the end of the course, students will have acquired the skills to design and manage databases effectively, making informed decisions about data storage and retrieval in various organizational settings.

COM 282 - Business Intelligence

Business Intelligence is a course that focuses on leveraging data and analytics to drive informed decision-making in business organizations. Students will learn about the tools, techniques, and methodologies used in business intelligence, including data warehousing, data visualization, data mining, and reporting. The course covers data extraction, transformation, and loading (ETL), dimensional modeling, and dashboard development. Students will gain hands-on experience with business intelligence tools and software. By the end of the course, students will have acquired the skills to collect, analyze, and interpret data, generating valuable insights for strategic planning, performance measurement, and competitive advantage in the business world.

COM 283 - Predictive Analytics

The Predictive Analytics course utilizes statistical techniques, data mining, and machine learning algorithms to forecast future outcomes and inform data-driven decisions. It explores the theory and practice of predictive modeling, emphasizing the understanding and application of advanced analytical tools and methodologies. Students will learn to collect and preprocess data, select appropriate predictive models, and evaluate model performance. Topics include regression analysis, classification algorithms, time series forecasting, and ensemble methods. Through hands-on exercises and real-world case studies, students will gain practical experience using predictive analytics to solve business problems, optimize processes, and improve decision-making in various industries. By the end of the course, students will have the skills to effectively apply predictive analytics techniques and contribute to data-driven decision-making in their professional careers.

COM 284 - Data Visualization

Data Visualization is a course that focuses on effectively visualizing data. Students learn techniques and tools to transform complex datasets into visually compelling and informative graphics, charts, and interactive visualizations. The course covers principles of visual perception, data storytelling, and visualization tools such as Tableau or D3.js. Through hands-on projects, students develop the skills to create visually appealing and impactful visualizations that facilitate data exploration, analysis, and communication.

COM 285 - Statistical Methods for Data Science

Statistical Methods for Data Science is a course that introduces students to critical statistical Techniques and methods used in data science. The course covers foundational concepts, including probability, hypothesis testing, and regression analysis. Students learn to apply statistical models and methods to analyze and interpret data,



make informed decisions, and draw meaningful conclusions. Topics covered may include exploratory data analysis, sampling techniques, statistical inference, linear regression, and hypothesis testing. Through practical assignments and projects, students gain hands-on experience applying statistical methods to real-world data sets, equipping them with the necessary skills for data-driven decision-making in various domains.

COM 290 - Operating Systems

Operating Systems is a course that explores the key concepts and functionalities of computer operating systems. Students will learn about processes, memory, file systems, and device management. Through practical assignments, students will gain hands-on experience and develop skills in designing and troubleshooting operating systems. By the end of the course, students will have a strong understanding of operating systems principles and practical knowledge of software development.

COM 291 - Cybersecurity Fundamentals

Cybersecurity Fundamentals is a course that introduces the basics of cybersecurity.

Students will learn about information security, common threats, network security, cryptography, and incident response. Through hands-on exercises, students will gain practical skills in securing computer systems and networks. By the end of the course, students will have a strong foundation in cybersecurity principles and be prepared to mitigate risks and protect against cyber threats.

COM 292 - Digital Forensics

The Digital Forensics course investigates and analyzes digital evidence in cybercrime cases.

Using forensic tools and techniques, students learn about the acquisition, preservation, and analysis of evidence. Through hands-on exercises, students gain practical experience conducting digital forensic investigations and presenting findings. By the end of the course, students will have the skills to perform digital forensic analysis and contribute to cybercrime investigations.

COM 293 - Intrusion Detection and Prevention

Intrusion Detection and Prevention is a course that focuses on protecting computer systems and networks from unauthorized access and attacks. Students will learn about the various intrusion detection and prevention techniques, tools, and methodologies used in cybersecurity. The course covers network security, system vulnerabilities, attack signatures, and anomaly detection. Students will gain hands-on experience deploying intrusion detection and prevention systems, configuring firewalls, and analyzing network traffic for potential threats. Students will learn how to identify and respond to security incidents through practical exercises and simulations. By the end of the course, students will have acquired the skills to detect, prevent, and mitigate potential intrusions, thereby enhancing the security posture of computer systems and networks in various organizational settings.

COM 294 - Penetration Testing and Ethical Hacking

Penetration Testing and Ethical Hacking is a course that teaches students how to identify and address vulnerabilities in computer systems and networks. Students will learn ethical hacking techniques and gain hands-on experience in conducting security assessments. By the end of the course, students will have acquired the skills to assess and enhance the security of systems and networks, thereby preventing cyber threats.

COM 296 - Security Management and Risk Assessment

Security Management and Risk Assessment is a course that focuses on the principles, strategies, and practices involved in managing security risks within organizations. Students will learn about security management concepts, including risk assessment, threat analysis, vulnerability assessment, and risk mitigation. The course covers security policies and procedures, security planning and implementation, incident response, and disaster recovery. Students will gain practical knowledge in conducting security assessments, identifying vulnerabilities, and developing risk management strategies. Through case studies and real-world examples, students will gain an understanding of the importance of proactive security measures and effective risk management in safeguarding assets, information, and operations. By the end of the course, students will have acquired the skills to assess security risks, develop effective risk management plans, implement security controls, and respond to security incidents, thereby protecting organizations from potential threats.

COM 298 - Technologies for the Production of Multimedia Content for Education

The course focuses on equipping students with the skills and knowledge necessary to create compelling multimedia content for educational purposes. Students will learn about various technologies, tools, and techniques used in multimedia production, including audio and video editing, animation, graphic design, and interactive multimedia. Through hands-on projects, students will develop proficiency in utilizing these technologies to design engaging educational materials. The course also emphasizes the importance of pedagogy and instructional design principles in creating effective multimedia content. By the end of the course, students will have acquired the expertise to produce high-quality multimedia content that enhances the educational learning experience.

COM 300 - Databases and Data Management

Databases and Data Management is a course that focuses on the principles, design, and implementation of databases for efficient data storage, retrieval, and management. Students will learn the fundamentals of database



management systems (DBMS), including data modeling, relational database design, SQL programming, and database administration. The course covers data normalization, query optimization, transaction management, and security. Students will gain practical experience creating and managing databases through hands-on exercises and projects. They will learn to design database schemas, write complex queries, and ensure data integrity and security. By the end of the course, students will have the skills to develop and maintain robust databases, effectively organize and manipulate data, and apply best practices in data management to support business needs and decision-making processes.

COM 305 - Web Analytics

Web Analytics is a course that explores the principles, methods, and tools used to analyze and interpret data on website performance and user behavior. Students will learn to collect and analyze data to gain insights into website usage, visitor demographics, traffic sources, and conversion rates. The course covers data tracking techniques, key performance indicators (KPIs), data visualization, and data-driven decision-making. Students will gain practical experience using web analytics tools and software to measure and improve website performance, optimize online marketing campaigns, and enhance user experience. Through hands-on projects and case studies, students will learn how to set up tracking systems, analyze website data, generate reports, and derive actionable insights. By the end of the course, students will have the skills to analyze web data effectively, make data-driven decisions, and optimize websites and online strategies to achieve organizational goals.

COM 310 - Nursing Informatics

Integrating nursing informatics across nursing is now recognized as a core competency to improve nursing practice and patient care. This course addresses the integration of nursing science with data and information sciences, utilizing specific procedures related to computer systems, establishing codes of conduct, and understanding security measures to protect patient information.

COM 315 - Digital Content Management

Digital Content Management is a course that focuses on the principles, strategies, and technologies used to effectively manage and organize digital content in various formats. Students will learn about the lifecycle of digital content, including creation, storage, retrieval, preservation, and dissemination. The course covers content management systems, metadata, content classification, and digital asset management. Students will gain practical knowledge in implementing content management strategies and utilizing software tools to organize and retrieve content. Through hands-on projects and case studies, students will learn how to create and manage digital content repositories, ensure content accessibility and usability, and optimize content workflows. By the end of the course, students will have the skills to effectively manage digital content, enhance information retrieval, and support collaboration and knowledge sharing within organizations.

COM 317 - Computer Graphics for Fashion II

Image editing and post-production techniques with Photoshop. Main InDesign tools for design processing and layout.

COM 320 - Programming III

The course has specific educational objectives, teaching fundamental concepts and methodologies of distributed and concurrent programming. Efficient and scalable software development presupposes the ability to program distributed and contemporary applications. Thus, the course aims to provide the basic knowledge necessary for programming disseminated and modern object-oriented applications using a high-level language (Java) through (i) network data exchange and (ii) programming parallel threads, i.e., "light" processes that can operate on one or more processors within the same main application. Another critical course focus is the event-driven programming technique for creating graphical user interfaces, the basis of all Windows-based desktop and Web applications.

COM 325 - Information Visualization

Information Visualization is a course focusing on the visual representation of data and information to facilitate understanding and analysis. Students will learn about principles and techniques for designing compelling visualizations that communicate complex data patterns and insights. The course covers data exploration, visual encoding, interaction design, and data storytelling. Students will gain hands-on experience with visualization tools and software, learning how to transform raw data into visually compelling and informative graphics. By the end of the course, students will have acquired the skills to create visually appealing and meaningful visualizations that enable users to interpret and gain insights from data in various domains, including business, science, and the social sciences.

COM 330 - Architecture of Computers

The course aims to provide the student with knowledge of techniques for encoding information within computers, knowledge of the hardware organization of computers through the notion of virtual machine hierarchies, understanding of the functions performed by hardware and used by operating systems, and the basics for understanding the process of translation from high-level languages to machine language. The teaching focuses on programming using an assembly language based on the RISC-V standard.



COM 333 - CAD Patternmaking

The course emphasizes the use of computerized software to design and develop patterns in the fashion and textile industries. Students learn to use specialized programs to create digital patterns, simulate fit, and adaptations on virtual mannequins, and produce detailed technical drawings for production.

COM 335 - Customer Relationship Management

Customer Relationship Management is a course exploring strategies and techniques for building and managing customer relationships. Students will learn about practical principles and practices in customer relationship management, including customer acquisition, retention, and satisfaction. The course covers customer segmentation, CRM technologies, data analytics, and customer loyalty programs. Students will gain practical knowledge in developing and implementing CRM strategies to enhance customer engagement and drive business growth. Through case studies and real-world examples, students will gain an understanding of the importance of customer-centric approaches and learn how to effectively leverage CRM tools and techniques to create personalized and seamless customer experiences. By the end of the course, students will have the skills to develop and manage successful customer relationships in diverse industries and sectors.

COM 340 - Development of Software Applications

Development of Software Applications is a course on designing, developing, and deploying software applications. Students will learn about software development methodologies, programming languages, and tools used in the development lifecycle. The course covers requirements gathering, software design principles, coding practices, testing, and maintenance. Students will gain practical experience in developing software applications through hands-on projects and assignments. They will learn to analyze user needs, design software architectures, implement functionalities, and debug and test their applications. By the end of the course, students will have acquired the skills to develop and deliver software applications that effectively meet user requirements, adhere to industry best practices, and follow software engineering principles.

COM 345 - Reinforcement Learning

Reinforcement Learning is a course that explores the principles and techniques of machine learning, where an agent learns to make decisions through interaction with an environment. Students will learn about the fundamentals of reinforcement learning, including Markov decision processes, reward functions, and policy optimization. The course covers value iteration, Q-learning, and deep reinforcement learning. Through practical assignments and projects, students will gain hands-on experience implementing reinforcement learning algorithms and solving complex decision-making problems. By the end of the course, students will have a solid understanding of reinforcement learning algorithms and be able to apply them to a wide range of real-world applications, such as robotics, game playing, and autonomous systems.

COM 350 - Explaining Artificial Intelligence

Explaining AI is a course focusing on the interpretability and explainability of artificial intelligence (AI) models and systems. Students will learn the importance of understanding and explaining AI algorithms and their decision-making processes. The course covers model interpretability techniques, explainable AI frameworks, and ethical considerations in the context of artificial intelligence (AI). Students will gain practical knowledge in evaluating and communicating the results and outputs of AI systems transparently and understandably. Through case studies and hands-on exercises, students will explore various approaches to explaining AI models and algorithms to different stakeholders, including non-technical audiences. By the end of the course, students will have the skills to critically analyze AI systems and effectively communicate the rationale and limitations of AI decisions, promoting transparency, accountability, and trust in AI applications.

COM 355 - Cryptography and Network Security

Cryptography and Network Security is a course that explores the principles, algorithms, and protocols used to secure data transmission and protect information in computer networks. Students will learn about cryptographic techniques, including symmetric and asymmetric encryption, digital signatures, hash functions, and key management. The course covers network security models, authentication protocols, secure communication channels, and security mechanisms applicable to various network layers. Students will gain practical knowledge in implementing cryptographic algorithms, configuring secure network protocols, and analyzing security vulnerabilities. Through hands-on exercises and real-world examples, students will gain an understanding of the importance of cryptography and network security in protecting sensitive information from unauthorized access and attacks. By the end of the course, students will have the skills to design and implement secure communication systems and mitigate security risks in network environments.

COM 360 - Frequency and Spectral Allocation: Wireless Systems

Frequency and Spectral Allocation: Wireless Systems is a course that explores the principles and techniques of frequency management and spectral allocation in wireless communication systems. Students will learn about the allocation of radio frequencies for various wireless applications and the regulatory frameworks governing the use of wireless spectrum. The course covers frequency bands, interference mitigation, spectrum sharing, and wireless standards. Students will learn to analyze and optimize frequency allocation for efficient wireless communication.



Through simulations and case studies, students will gain an understanding of the challenges and considerations involved in designing and deploying wireless systems with limited spectrum resources. By the end of the course, students will have the skills to create and manage wireless networks, ensuring optimal use of available frequency bands and mitigating interference to achieve reliable and high-performance wireless communication.

COM 363 - Digital Technologies Applied to Online Sales

Fundamental tools for understanding the current context of digital and multi-channel retail planning and distribution. Dynamics and changes of retail in physical and digital channels. Main players. Generational consumer behaviour. Strategic analysis of distribution channels and their distinguishing features from an evolving market perspective towards becoming omnichannel.

COM 365 - Advanced Network Security

Advanced Network Security is a course that delves into the advanced concepts, techniques, and practices of securing computer networks against cyber threats. Students will learn about the latest trends and challenges in network security, including advanced persistent threats, malware analysis, and intrusion detection systems. The course covers secure network architectures, network monitoring, encryption protocols, secure wireless networks, and virtual private networks (VPNs). Students will gain hands-on experience in implementing advanced security measures, including firewalls, intrusion prevention systems, and secure remote access. Students will learn how to identify network vulnerabilities, mitigate risks, and respond to security incidents through practical exercises and real-world simulations. By the end of the course, students will have the skills to design, implement, and manage advanced network security solutions, ensuring the confidentiality, integrity, and availability of critical network resources.

COM 370 - Data Ethics and Privacy

Data Ethics and Privacy is a course focusing on the ethical and privacy considerations surrounding data collection, usage, and sharing in various contexts. The course explores the ethical challenges and societal implications that arise from the increasing availability and utilization of data in today's digital age. Students learn about the ethical frameworks, principles, and legal regulations governing data privacy and protection. They examine case studies and real-world scenarios to understand the ethical dilemmas and potential risks associated with data handling, including issues of consent, data anonymization, data breaches, and algorithmic bias. The course also delves into the ethical responsibilities of data professionals and the importance of incorporating ethical considerations into the design and implementation of data-driven systems. The course aims to equip students with the knowledge and skills to make informed decisions and uphold ethical standards in data-related practices and decision-making processes.

COM 375 - Text Analytics

The Text Analytics course analyzes textual data using computational methods and techniques. In this course, students learn to extract meaningful insights and knowledge from large volumes of text data, such as articles, social media posts, customer reviews, and documents. The course covers various aspects of text analytics, including text preprocessing, text classification, sentiment analysis, topic modeling, and information extraction. Students gain hands-on experience with popular text analytics tools and libraries, learning how to apply natural language processing (NLP) techniques to address challenges such as text cleaning, tokenization, and feature extraction. Through practical exercises and projects, students develop the skills to analyze and interpret textual data, uncover patterns and trends, and derive actionable insights for applications in marketing, customer feedback analysis, social media mining, and content recommendation systems.

COM 380 - Time Series Analysis

Time Series Analysis is a course that focuses on the principles, methods, and techniques used to analyze and forecast time-dependent data. Students will learn about the characteristics of time series data, including trends, seasonality, and dependencies. The course covers time series modeling, data decomposition, autocorrelation analysis, and forecasting methods. Students will gain practical experience in analyzing and predicting time series data through hands-on projects and the use of statistical software applications. They will learn to identify patterns, model temporal dependencies, and apply appropriate forecasting techniques. Through case studies and real-world examples, students will gain an understanding of the applications of time series analysis in various fields, including finance, economics, and environmental sciences. By the end of the course, students will have the skills to analyze time series data effectively, make accurate predictions, and contribute to decision-making processes that rely on understanding and forecasting time-dependent phenomena.

COM 385 - Multivariate Analysis

Multivariate Analysis is a course that explores the statistical methods and techniques used to analyze and interpret data with multiple variables simultaneously. Students will learn about the principles and applications of multivariate data analysis, including exploratory data analysis, dimensionality reduction, clustering, and classification. The course covers principal component analysis, factor analysis, discriminant analysis, and multivariate regression. Students will gain practical experience using statistical software and programming languages to perform multivariate analysis on real-world datasets, thereby gaining valuable skills in data analysis. They will learn to



identify patterns, relationships, and dependencies among variables and make meaningful interpretations. Through case studies and practical exercises, students will gain an understanding of the applications of multivariate analysis in various fields, including social sciences, marketing, and environmental studies. By the end of the course, students will have the skills to analyze multivariate data effectively, uncover insights, and make informed decisions based on complex datasets.

COM 390 - Human-Computer Interaction

Human-Computer Interaction" is a course that explores the design and evaluation of interactive systems to enhance user experience. Students will learn about HCI's principles, theories, and methodologies, including user-centered design, usability testing, and interaction design patterns. The course covers user research, prototyping, user interface design, and user feedback analysis. Students will gain practical experience designing and evaluating interactive systems through hands-on projects and usability testing sessions. They will learn how to understand user needs, create intuitive and engaging interfaces, and assess the usability and effectiveness of their designs. By the end of the course, students will have the skills to design user-friendly and efficient interactive systems that meet user requirements and provide a positive user experience across various platforms and devices.

COM 400 - Video Production

The course covers the practical and theoretical fundamentals necessary to create compelling video content. Students learn techniques for planning and preparing video productions, including scriptwriting, shot planning, and managing technical resources. Filming techniques, lighting, audio, and video editing are also explored.

COM 401 - Information Technology in Healthcare

Information Technology in Healthcare is a course that explores the role and impact of technology in the healthcare industry. Students will learn about the various applications of information technology (IT) in healthcare, including electronic health records (EHRs), telemedicine, healthcare data analytics, and health information exchange (HIE). The course covers healthcare IT infrastructure, healthcare information systems, privacy and security considerations, and regulatory requirements. Students will gain practical knowledge in utilizing healthcare software, managing health data, and implementing IT solutions to improve patient care, operational efficiency, and decision-making in healthcare settings. Students will gain an understanding of the challenges and opportunities associated with integrating information technology (IT) into healthcare systems through case studies and real-world examples. By the end of the course, students will have the skills to effectively leverage information technology to enhance healthcare delivery, ensure data privacy and security, and contribute to the digital transformation of the healthcare industry.

COM 402 - IT Service Management

IT Service Management is a course that focuses on the principles, practices, and frameworks used to effectively manage IT services within organizations. Students will learn about the critical concepts of IT service management, including service strategy, service design, service transition, service operation, and continual service improvement. The course covers IT service delivery processes, service level agreements, incident management, change management, and IT service desk operations. Students will gain practical knowledge in implementing IT service management best practices, utilizing IT service management frameworks such as ITIL (Information Technology Infrastructure Library), and managing IT service projects. Through case studies and real-world examples, students will gain an understanding of the importance of aligning IT services with organizational goals, enhancing service quality, and ensuring customer satisfaction. By the end of the course, students will have the skills to effectively plan, implement, and manage IT services, optimize service delivery processes, and contribute to the overall IT service management strategy within organizations.

COM 403 - Geographic Information Systems

Geographic Information Systems is a course that explores the principles and applications of spatial data analysis and management. Students will learn about the fundamental concepts of GIS, including spatial data representation, data acquisition, spatial analysis, and visualization. The course covers spatial databases, spatial data models, geospatial analysis techniques, and cartographic design principles. Students will gain practical experience using GIS software and tools to analyze and visualize spatial data for various applications, such as environmental planning, urban management, and resource allocation. Through hands-on exercises and projects, students will learn how to collect, integrate, manipulate, and analyze geospatial data to support decision-making processes. By the end of the course, students will have acquired the skills to effectively utilize GIS technology, interpret spatial patterns, and create informative maps and visualizations for a wide range of geographic applications.

COM 404 - Virtual Reality and Augmented Reality

Virtual Reality and Augmented Reality is a course that explores the principles, technologies, and applications of immersive virtual reality (VR) and augmented reality (AR) experiences. Students will learn about the fundamentals of virtual reality (VR) and augmented reality (AR), including the underlying technologies, hardware devices, and software development tools. The course covers 3D modeling, spatial tracking, user interaction, and immersive content creation. Students will gain practical experience designing and developing VR and AR applications through hands-on projects and simulations. They will learn how to create realistic virtual environments, integrate virtual



objects into real-world settings, and enhance user experiences through the use of interactive elements. Through case studies and real-world examples, students will gain an understanding of the diverse applications of VR and AR in various industries, including gaming, education, healthcare, and architecture. By the end of the course, students will have the skills to design and develop immersive VR and AR experiences, leverage emerging technologies, and contribute to the advancement of virtual and augmented reality applications.

COM 405 - Emerging Technologies

Emerging Technologies is a course that explores the latest technological advancements. Students will learn about cutting-edge technologies, including artificial intelligence (AI), blockchain, virtual reality (VR), augmented reality (AR), and the Internet of Things (IoT). Through case studies, students will gain insights into the applications and impact of these technologies. By the end of the course, students will have a solid understanding of emerging technologies and their potential implications in various industries.

COM 406 - Knowledge Management

Knowledge Management is a systematic and strategic approach to organizing and leveraging knowledge that enhances decision-making, innovation, and collaboration. Students will learn about the principles, processes, and tools used to create, capture, store, and share knowledge within an organization. The course covers topics such as knowledge identification, knowledge representation, knowledge transfer, and knowledge retention. Students will gain practical knowledge in designing knowledge management systems, implementing knowledge-sharing platforms, and facilitating the exchange of employee knowledge. Through case studies and valuable projects, students will learn how to develop knowledge management strategies, foster a culture of knowledge sharing, and leverage organizational knowledge to drive business success. By the end of the course, students will have the skills to effectively manage and utilize knowledge assets, promote knowledge sharing and collaboration, and improve organizational performance through effective knowledge management practices.

COM 407 - Information Technology Auditing and Assurance

Information Technology Auditing and Assurance is a course that focuses on the principles, methodologies, and practices involved in auditing and assuring the effectiveness and security of information technology systems within organizations. Students will learn about the concepts of IT auditing, including risk assessment, control evaluation, compliance, and governance frameworks. The course covers IT audit planning, data integrity, network security, privacy protection, and regulatory compliance. Students will gain practical knowledge in performing IT audits, assessing internal controls, and conducting vulnerability assessments. Through case studies and real-world examples, students will gain an understanding of the importance of IT auditing and assurance in mitigating risks, ensuring data integrity, and safeguarding information assets. By the end of the course, students will have the skills to effectively audit IT systems, evaluate control environments, identify vulnerabilities, and provide recommendations to improve IT governance and security practices within organizations.

COM 410 - Learning Analytics

Learning Analytics is a course exploring data and analytics to improve learning and educational outcomes. Students will learn about the principles and techniques of collecting, analyzing, and interpreting data generated in academic settings. The course covers data visualization, predictive modeling, and educational data mining. Students will gain hands-on experience using learning analytics tools and software to analyze student performance, engagement, and behavior patterns. Through case studies and practical projects, students will learn how to derive meaningful insights from educational data and use them to inform instructional design, personalized learning, and intervention strategies. By the end of the course, students will have the skills to apply learning analytics methods to enhance teaching and learning practices, support student success, and promote data-informed decision-making in educational contexts.

COM 415 - 3D Multimedia Design

Students learn to use advanced software to model fabrics, simulate fit, and visualize garments in virtual environments. This approach allows designers to test and refine their designs before physical production, reducing costs and development time.

COM 417 - Computer Graphics for Fashion III

Techniques for professional portfolio development and personal online graphic presentation.

COM 420 - Formal Methods in Computer Science

Formal Methods in Computer Science is a course that explores the principles, techniques, and applications of formal methods for designing, analyzing, and verifying computer systems and software. Students will learn about mathematical foundations, formal languages, and logic-based formalisms used in formal methods. The course covers formal specifications, model checking, theorem proving, and program analysis. Students will gain practical experience in applying formal methods to verify the correctness, safety, and reliability of computer systems. They will learn how to formally specify system properties, model system behavior, and apply formal verification techniques to detect errors and ensure the system's correctness. Through case studies and practical exercises, students will gain an understanding of the importance of formal methods in critical systems, including safety-critical



software, embedded systems, and cybersecurity. By the end of the course, students will have acquired the skills to apply formal methods in designing and verifying computer systems, enhancing software quality, and contributing to the development of reliable and trustworthy computing systems.

COM 440 - Elements of Editorial Design

The program focuses on the design and production of printed and digital materials. Students learn the fundamental principles of graphic design, which are applied to creating effective editorial layouts for magazines, books, newspapers, and other communication media.

COM 445 - Multimedia Database

Multimedia Database is a course that focuses on the principles, design, and management of databases that store and retrieve multimedia content, including images, audio, video, and other types of multimedia data. The course covers various topics related to multimedia database systems, including data modeling, indexing and retrieval techniques, multimedia query processing, and storage management. Students learn to represent and store multimedia data efficiently in databases, considering factors such as data compression, indexing methods, and metadata management. They explore techniques for querying multimedia data, including similarity search, content-based retrieval, and context-based retrieval. By the end of the course, students will have acquired a comprehensive understanding of multimedia database concepts and techniques, enabling them to work effectively with multimedia data in various domains, such as digital libraries, multimedia content management systems, and multimedia applications.

COM 450 - Network Protocols and Architecture

The Network Protocols and Architecture course focuses on the principles, protocols, and architectural concepts of computer networks. Students will learn about the different layers of the network protocol stack, including the physical, data link, network, transport, and application layers. The course covers IP addressing, routing protocols, Ethernet, TCP/IP, and network security. Students will gain practical knowledge in configuring and troubleshooting network protocols and devices. Through hands-on exercises and simulations, students will gain an understanding of the functionalities of various network protocols and their role in establishing reliable and efficient communication between devices and networks. By the end of the course, students will have the skills to design, implement, and manage network infrastructures, ensuring seamless connectivity and effective data transmission in diverse network environments.

COM 460 - Neural Networks and Deep Learning

Neural Networks and Deep Learning is a course that explores the principles, architectures, and applications of neural networks and deep learning algorithms. Students will learn about the fundamentals of artificial neural networks, including feedforward networks, recurrent networks, and convolutional networks. The course covers activation functions, backpropagation, gradient descent, regularization techniques, and deep learning frameworks. Students will gain practical experience implementing neural networks and deep learning models through hands-on projects and coding exercises. They will learn to preprocess data, design network architectures, train models, and evaluate their performance. Through case studies and applications, students will gain an understanding of the diverse applications of deep learning in areas such as computer vision, natural language processing, and pattern recognition. By the end of the course, students will have the skills to design and implement neural networks, apply deep learning techniques to solve complex problems, and contribute to advancements in artificial intelligence and machine learning.

COM 470 - Computer Network Security

Computer Network Security is a course focusing on the principles, technologies, and practices used to secure computer networks from unauthorized access, data breaches, and cyber threats. Students will learn about network security concepts, risk assessment, and defense mechanisms. The course covers network vulnerabilities, firewalls, intrusion detection systems, virtual private networks (VPNs), and secure protocols. Students will gain practical knowledge in implementing security measures, configuring network devices, and conducting security audits. Through hands-on exercises and case studies, students will learn how to analyze network traffic, detect and mitigate security incidents, and develop strategies to protect network infrastructure. By the end of the course, students will have the skills to design and implement robust network security solutions, safeguard sensitive data, and ensure the integrity and confidentiality of network communications.

COM 495 - Senior Project

The senior project may take many forms: a group project to pursue an identifiable problem with a faculty sponsor or to choose a topic for critical review.

Prerequisite: 90 Credits

COM 500 - Introduction to Cybersecurity

This course covers a wide range of concepts, challenges, and technologies that form the basis of cybersecurity. You will gain an understanding of cybersecurity and its importance, as well as explore the techniques and technologies used to achieve it.



COM 505 - Cybersecurity Policy

Learning techniques to defend against significant security attacks, and an introduction to symmetric essential encryption techniques.

COM 510 - Cyber Threat Intelligence

Cyber Threat Intelligence is a course that explores the field of intelligence analysis and its application to cybersecurity. The course focuses on understanding, detecting, and mitigating cyber threats by leveraging intelligence methodologies and tools. Students learn how to collect, analyze, and interpret data related to cyber threats from various sources, such as threat feeds, dark web monitoring, open-source intelligence, and security incident reports. The course covers topics such as the threat intelligence lifecycle, threat modeling, threat actors, attack vectors, and indicators of compromise (IOCs). Students also learn about cyber threats, including malware, phishing, social engineering, and advanced persistent threats (APTs). By the end of the course, students will have acquired a solid understanding of the cyber threat landscape and the methodologies used to analyze and respond to cyber threats.

COM 515 - Cybersecurity Architecture

Cybersecurity Architecture is a course that focuses on designing and implementing secure systems and networks. Students learn about different components of cybersecurity architecture, including network security, access controls, encryption, and intrusion detection systems. The course covers security principles, risk assessment, and the development of security policies and procedures. Students gain practical knowledge in designing secure architectures that protect against cyber threats and ensure the confidentiality, integrity, and availability of information. The course also explores emerging trends and technologies in cybersecurity architecture.

COM 517 - Cloud Security

Cloud Security is a course that focuses on the principles, techniques, and best practices for ensuring the security of cloud computing environments. Students will learn about the unique security challenges and risks associated with cloud computing, including data breaches, unauthorized access, and service disruptions. The course covers cloud security architecture, identity and access management, data encryption, secure network configurations, and cloud compliance. Students will gain practical knowledge in implementing security measures tailored to cloud environments, including secure cloud deployments, selecting cloud service providers, and responding to incidents in the cloud. Through case studies and real-world examples, students will gain an understanding of the importance of securing data and applications in the cloud, mitigating cloud-related vulnerabilities, and adhering to industry standards and regulations. By the end of the course, students will have the skills to effectively assess cloud security risks, design and implement secure cloud architectures, and manage security incidents in cloud computing environments.

COM 518 - Mobile Security

Mobile Security is a course that explores the principles, techniques, and practices used to secure mobile devices, applications, and data in today's interconnected world. Students will learn about the unique security challenges and vulnerabilities associated with mobile platforms, including smartphones, tablets, and wearable devices. The course covers secure mobile device management, mobile application security, secure coding practices, secure communication protocols, and mobile threat detection and mitigation. Students will gain practical knowledge in implementing security measures tailored to mobile environments, including device encryption, authentication mechanisms, app sandboxing, and mobile data protection. Through case studies and real-world examples, students will gain an understanding of the importance of protecting sensitive information, preventing unauthorized access, and safeguarding against mobile threats, including malware, data leakage, and device theft. By the end of the course, students will have the skills to effectively assess mobile security risks, implement robust security controls, and develop strategies to enhance the overall security posture of mobile devices and applications.

COM 519 - Wireless Security

Wireless Security is a course that explores the principles, techniques, and practices used to secure wireless communication networks. Students will learn about the security challenges and vulnerabilities of wireless technologies, including Wi-Fi, Bluetooth, and cellular networks. The course covers wireless network architecture, encryption protocols, authentication mechanisms, and intrusion detection and prevention systems. Students will gain practical knowledge in implementing security measures specific to wireless networks, including secure configuration, access control, and encryption algorithms. Through case studies and real-world examples, students will gain an understanding of the importance of protecting wireless networks from unauthorized access, eavesdropping, and data breaches. By the end of the course, students will have the skills to assess wireless security risks, design and implement secure wireless networks, and mitigate potential threats to ensure the confidentiality, integrity, and availability of wireless communications.

COM 520 - Fundamental Security Management and Governance

This course deepens my understanding and appreciation of the need for effective security management. It will cover different approaches to leadership in practice, including security standards and the critical importance of a risk-based approach. By the end of the course, the student will have understood the essential components of



practical cybersecurity management, including the impact of laws and regulations, the importance of auditing, and the critical role of people in achieving cybersecurity. Failure cases will be examined to understand the importance of effective security management.

COM 521 - Introduction to Robotics

This course provides an overview of the most critical issues related to modern robotics, highlighting the primary problems that need to be addressed to enable robots to function effectively in their environment. Specifically, the course will cover the following topics: taxonomy of different types of robots, physical modeling (including direct and inverse kinematics), model simulation, sensing and actuation solutions for perception and action, and motion planning. It will combine simulation models and laboratory experiences to consolidate the knowledge conveyed during the theoretical lectures.

COM 522 - Computer Vision

The course aims to provide students with an in-depth overview of methods for analyzing and managing multimedia data. Starting from the basics of image and video processing, the course will focus on the problems of motion modeling and detection, motion tracking, and object recognition by using monocular and multi-view systems.

COM 523 - Advanced Computer Vision

The course aims to equip students with the knowledge necessary to address complex problems in computer vision. In particular, it will provide students with a theoretical and practical understanding of the primary methods and algorithms for analyzing visual data based on neural networks and deep learning.

COM 524 - Trends and Applications of Computer Vision

The course aims to make the students aware of the most recent developments in Computer Vision. To this end, the course's teachers and tutors will discuss and present the most relevant scientific papers, highlighting the theoretical foundations and practical implications through ad hoc laboratory experiences. The final exam will focus on a scientific paper selected in consultation with the teachers. The students will present the advantages and disadvantages of the technique shown in the form, touching on such issues as the replicability of the results and the datasets. The discussion will follow the pattern of a scientific peer review, and the exercise aims to deepen students' scientific competencies while strengthening their soft skills simultaneously.

COM 525 - Artificial Intelligence

The course aims to deepen knowledge of Artificial Intelligence, focusing on an intelligent agent's ability to make inferences based on an explicit knowledge representation of the domain. Design skills complement methodological skills because the course involves testing reasoning methods based on the logic programming paradigm, developing an intelligent agent capable of exhibiting reactive and deliberative behaviors (using rule-based production environments), and testing tools for cognitive architectures.

COM 526 - Advanced Computer Vision

Artificial Intelligence and Innovation is a course that explores the intersection of artificial intelligence (AI) and innovation. It focuses on how AI technologies can drive transformative changes and foster innovation in various domains. Students will learn about the principles, techniques, and applications of AI, including machine learning, natural language processing, and computer vision. The course covers AI-driven innovation processes, AI-powered problem-solving, and the ethical and societal implications of artificial intelligence (AI). Students will gain practical knowledge in applying AI techniques to real-world scenarios, identifying opportunities for AI-driven innovation, and developing AI-based solutions. Through case studies and hands-on projects, students will gain an understanding of how AI can be leveraged to enhance existing products and services, create new business models, and address societal challenges. By the end of the course, students will have acquired the skills to integrate AI technologies into innovation strategies, assess the impact of AI on various industries, and contribute to the development and deployment of AI-driven innovations.

COM 527 - Advanced Topics in Machine Learning and Optimization

This course presents advanced topics in machine learning, optimization research, and technology. It will cover some of the most promising directions of recent research. The course includes lab exercises and seminars on selected topics.

COM 528 - Optimization Techniques

The course focuses on discussing optimization problems, particularly those involving combinatorial optimization. It aims to familiarize students with optimization problems that frequently occur in practical applications, enabling them to recognize the difficulty of the situation and providing them with the tools to solve such problems.

COM 530 - Signal, Image, and Video

The course provides essential competencies in digital signal processing, with a particular focus on images and video sequences. Starting from the fundamentals of 1D signal analysis and processing, analog and numerical, in time and frequency domains, we then extend the concepts to the multi-dimensional case of signals in space. Then, we introduce the more critical approaches for image filtering and extracting image descriptors. These concepts are further extended to deal with motion pictures. Finally, the image compression problem focuses on the most



well-known image and video coding techniques and their standard implementations. The course's approach is rather practical, explaining theoretical concepts and translating them into algorithmic terms.

COM 531 - Distributed Robot Perception

Distributed Robot Perception examines the principles and algorithms that enable multiple robots to perceive and understand their environment collaboratively. Topics include distributed sensor fusion, localization, mapping, and object recognition. Students gain practical knowledge in implementing distributed perception algorithms and designing communication protocols. Through hands-on projects, they develop skills in coordinating robots for efficient perception and action. The course addresses scalability and robustness considerations. Students will be able to design and implement distributed perception solutions for multi-robot systems upon completing the course.

COM 532 - Optimization-Based Robot Control

This course focuses on the control of robotic systems, with a particular emphasis on optimal numerical control and reinforcement learning. After reviewing the basic principles of robot modeling and numerical optimization, students will learn different control techniques, from the simplest and most well-known to the most recent and advanced. Methods will be studied in theory and then implemented in simulation (with Python) to gain practical experience. Applications will span industrial manipulators, as well as legged, flying, and wheeled robots.

COM 533 - Robot Planning and Its Application

The course will delve into robotic deliberation, meaning robots can decide on a mission and refine it into an executable and detailed tactical plan that fulfills their goals. More often than not, the latter amounts to choosing a trajectory that needs to be followed, avoiding obstacles, and cooperating with humans and other robots. The student will receive a comprehensive introduction to the most crucial motion planning techniques and will refine their understanding through challenging laboratory experiences.

COM 535 - Natural Language Understanding

Natural language understanding is fundamental to artificial intelligence systems communicating with humans. A master's degree in Artificial Intelligence Systems enables direct communication with humans through the conversational interfaces of social robots. A Master's in Artificial Intelligence Systems may enable me to read and comprehend vast amounts of human language data (speech, text, or multimedia) and make sense of it. In the first part of the course, we will provide students with a basic understanding of natural language structure, from the lexicon to the document level, and formal models for representing the lexicon, sentence, and discourse. We will present and provide the machine learning models to learn language structures from language corpora. In the last part of the course, we will describe use cases of Natural Language Understanding in Main Artificial Intelligence Systems. Students will be trained to train simple natural language understanding models for different use cases.

COM 536 - Bio-Inspired Artificial Intelligence

Bio-Inspired Artificial Intelligence explores how biological systems inspire the design of artificial intelligence algorithms. Topics include genetic algorithms, neural networks, and swarm optimization. Students gain practical knowledge in implementing bio-inspired AI algorithms and solving complex problems. Through projects and case studies, they gain an understanding of the potential of bio-inspired approaches in optimization, pattern recognition, and decision-making. Ethical considerations and limitations are also discussed. By the end, students will be able to design and apply bio-inspired AI solutions to advance research and practical applications.

COM 537 - Innovation and Entrepreneurship Basic

The course will provide students with a fundamental knowledge of Microeconomics and business organization, particularly regarding the economy of information, networks, and innovation in information and communication technologies and information systems. Particular attention will be devoted to decision-making and management, as well as the key factors influencing stakeholder decisions in companies, networks, and markets. These principles are of primary importance both in guiding companies and in shaping public policies for market regulation.

COM 538 - Sensing and Radar Technologies

The course introduces (I) the fundamental technologies for acquiring radar and remote sensing data (multispectral, hyperspectral, synthetic aperture, and lidars) and (II) the properties of the related big data acquired by satellites, aircraft, and drones. Then, it presents the essential techniques for automatically extracting semantic information, semantic segmentation, change detection, and sensor data fusion. The addressed techniques leverage statistical methods, machine learning, and physical models.

COM 540 - Analysis and Visualization of Complex Networks

This course introduces the main concepts, principles, and methodologies in the interdisciplinary field of Network Science, with a focus on analytical techniques, modeling, and applications for the Web and social media. Topics covered include the study of network structure, mathematical models of networks, topologies of standard networks, the structure of large graphs, community structures, and centrality measures. A significant portion of the teaching is devoted to dynamic network processes, including epidemics in contact networks and the spread of ideas, opinions, innovations, and behaviors in social networks, with a focus on distinguishing between simple and complex contagion. They will also cover the basic principles of designing a data and information visualization



system by learning to acquire, explore, and analyze datasets using 'visual analytics techniques. Students will learn the primary hods for visualizing multivariate, temporal, textual, geospatial, hierarchical, and (especially) network and graph-based data. Finally, students will utilize tools such as GePhi, D3, Python, and the web, among others, to implement these techniques on existing datasets.

COM 541 - Performance Evaluation: Simulation and Modeling

This course introduces the Performance Evaluation of Computing Systems and Telecommunication Networks. The course consists of two parts: the first deals with the most important analytical and numerical methods of analysis used for the study of models helpful in analyzing the behavior of traffic systems; the second introduces stochastic processes, and in particular Markov Chains, as tools for conducting a more in-depth study of the techniques discussed in the first part. The introductory level of the course does not allow for dealing with the research and modeling of natural systems. However, the preparation provided is sufficient to enable any student to deal with the study of actual cases, understand the analysis method to be followed, and recognize the potential of the available techniques. The language and examples used throughout the course are inspired by the problem of evaluating the performance of computational systems. However, the methodologies discussed have a much broader scope of application. The models discussed in this course are probabilistic representations that express various aspects of reality through network service stations. Queues may form due to congestion or synchronization phenomena in front of these queueing networks. This course examines the behavior of queueing networks, employing analytical and numerical techniques (in simpler cases) and simulation methods in more complex ones.

COM 542 - Bio-Informatics

This section introduces the primary challenges of biological data analysis and describes the related algorithms employed in bioinformatics. It also presents the technologies that produce large masses of genomic (DNA) and transcriptomic (RNA) data.

COM 543 - Natural Language Technologies

The course aims to provide an introduction to the basics of modern natural language processing technologies. The course will cover the introduction and essential elements of automatic natural language processing, including aspects of morphology, syntax, formal semantics, generation, and machine translation. The course will focus on lexical semantics, some paradigms of knowledge representation, and notions of conceptual anchoring. Resources and approaches for the conceptual model will be introduced. Finally, statistical methods will be covered, and the concept of distributional semantics, along with related existing methodologies, will be addressed. Semantic similarity and the theoretical basis for constructing meaning through syntactic-semantic compositions will be explored, with nods to the automatic construction of ontologies.

COM 544 - Analysis and Processing of Digital Signals

This course covers the fundamentals of analyzing and processing digital signals. The course is designed to achieve educational objectives by providing theoretical and practical skills in numerical signal analysis and processing. To study theoretical and formal aspects and use numerical computational tools. Analysis and Processing of Digital Signals. This course covers the fundamentals of digital signal analysis and processing. It is devoted to the educational objectives of providing theoretical and practical skills in numerical signal analysis and processing, as well as studying the theoretical and formal aspects, and applying numerical computational tools.

COM 555 - Natural Language Processing

Natural Language Processing is a course that explores the intersection of computer science and linguistics, focusing on computers' understanding and processing of human language. Students learn about various techniques and algorithms for analyzing and manipulating natural language data, such as text classification, sentiment analysis, named entity recognition, and machine translation. The course covers the fundamentals of language modeling, syntax, semantics, and discourse analysis. Students also gain hands-on experience with popular tools and frameworks used in natural language processing. This allows them to develop practical skills in building applications that can understand and generate human language.

COM 575 - Conceptual Modeling for the Semantic Web

Conceptual Modeling for the Semantic Web is a course that focuses on the principles and techniques of modeling information in the context of the Semantic Web. Students learn to represent knowledge and information using formal ontologies and conceptual models. The course covers various topics, including RDF (Resource Description Framework), OWL (Web Ontology Language), and SPARQL (SPARQL Protocol and RDF Query Language). Students gain a deep understanding of the Semantic Web architecture and its components, including ontologies, knowledge graphs, and linked data. They also learn how to design and develop conceptual models that facilitate data integration, interoperability, and semantic reasoning on the web. Practical exercises and assignments enable students to apply their knowledge and skills to real-world scenarios, developing applications that leverage semantic web technologies.

COM 600 - Applied Cryptography



This course examines the role of cryptography in securing everyday applications, including the Internet, cell phones, wireless networks, and cryptocurrency. It then develops an understanding of the functionality and purpose of the powerful cryptographic tools used today. It teaches how to select the appropriate cryptographic tools for specific contexts. Ultimately, it examines the broader infrastructure surrounding cryptography and its impact on the overall security of systems that utilize it.

COM 605 - Network and Infrastructure Security

This course explores the fundamentals of cybersecurity, enabling you to develop a comprehensive understanding of the critical technologies employed in computer networks and infrastructure. These include operational technologies and critical national infrastructures, such as protocols, computer networks, data centers, and active technologies essential to the success of organizations and services on both local and international scales.

COM 610 - Software and Application Security

This course introduces the principles of software and applications, including security and malicious software issues. It will cover techniques for secure software development, principles of rapid programming, and common vulnerabilities introduced during the software development process. At the end of the course, broader considerations and research directions for software and application security will be discussed. Essential software and application security aspects will be examined through topical case studies, such as the web and cloud. This course complements Computer Systems Security and Infrastructure Security.

COM 615 - Cybersecurity Research Methods

The course's primary objective is to equip students with the methodological and practical foundation for applying network and computer security and management tools in scientific, business, and professional contexts. The fundamentals and tools necessary to address problems in a real-world context are provided. Management of systems and networks must consider internal policies and interoperability issues between different environments.

COM 620 - Industrial Control Systems Security

Industrial Control Systems Security focuses on protecting critical infrastructure by addressing the security challenges and vulnerabilities of industrial control systems. Students learn about ICS architecture, threat assessment, and security frameworks. Practical knowledge includes implementing intrusion detection, secure communication, and incident response measures. The course emphasizes the importance of safeguarding ICS against cyber threats to ensure operational continuity and the integrity of critical infrastructure. Students develop skills in risk assessment and the implementation of security controls, and they contribute to the protection of ICS in various sectors.

COM 621 - Human-Machine Dialogue

Robots that can communicate or interact with humans are becoming increasingly prevalent in various industrial domains. MAIS systems using natural language can interact with humans and operate in command-and-control, information retrieval, or cooperative decision-support tasks. This course reviews the basic principles of human-computer interaction, conversation linguistics, discourse analysis, computational Dialogue Models, dialogue system architectures, and their evaluation. In the second part, we provide methodologies for designing Conversational Agents, data-driven training, design tools, and a project-based lab that addresses real-world use cases.

COM 625 - Artificial and Biological Neural Systems

Artificial and Biological Neural Systems is a course exploring the principles, models, and applications of neural systems in artificial intelligence and biological organisms. Students will learn about the fundamental concepts of neural networks, including the structure and function of artificial neural networks and biological brains. The course covers neural computation, learning algorithms, deep learning architectures, and applications of neural networks in areas such as image recognition and natural language processing. Students will gain practical knowledge in implementing neural network models and algorithms, analyzing neural data, and designing neural-inspired systems. Through case studies and real-world examples, students will gain an understanding of the potential of artificial and biological neural systems in solving complex problems and advancing various fields. By the end of the course, students will have the skills to develop and apply neural network models, evaluate their performance, and contribute to the advancements in artificial intelligence and neuroscience.

COM 630 - Artificial Intelligence and Innovation

Artificial and Biological Neural Systems is a course exploring the principles, models, and applications of neural systems in artificial intelligence and biological organisms. Students will learn about the fundamental concepts of neural networks, including the structure and function of artificial neural networks and biological brains. The course covers neural computation, learning algorithms, deep learning architectures, and applications of neural networks in areas such as image recognition and natural language processing. Students will gain practical knowledge in implementing neural network models and algorithms, analyzing neural data, and designing neural-inspired systems. Through case studies and real-world examples, students will gain an understanding of the potential of artificial and biological neural systems in solving complex problems and advancing various fields. By the end of



the course, students will have the skills to develop and apply neural network models, evaluate their performance, and contribute to the advancements in artificial intelligence and neuroscience.

COM 635 - Ethics, Society, and Privacy

"Ethics, Society, and Privacy" is a course that explores the ethical implications and societal impact of technology, particularly in the context of privacy. The course explores the ethical considerations and challenges that arise from the growing use of technology in various domains. Students examine ethical frameworks, principles, and theories to critically analyze the moral implications of emerging technologies, including artificial intelligence, big data, and internet surveillance. The course also addresses technology-related social issues, including the digital divide, algorithmic bias, and the impact on individuals, communities, and society. Students develop a deeper understanding of the ethical considerations, societal implications, and privacy challenges associated with technology through discussions, case studies, and debates. This enables them to make informed decisions and contribute to responsible and ethical practices in the field.

COM 690 - Research and Master's Thesis

Under the approval and guidance of a faculty member, students will prepare a thesis.

Prerequisite: 30 Credits

14.3.3.2 Mathematics

MAT 50 - Pre-Algebra

This course is designed to help prepare students to enter the MAT 100 Algebra Course. It will cover fundamental concepts of mathematics and an introduction to Algebra. Students will be exposed to ideas of Integers, Rational and Real numbers, basic operations, exponents, percentages, and measurements. Basic Algebra concepts include simplifying expressions, solving linear equations, and an introduction to Polynomials.

Credits: None

MAT 70 - Preparation for GMAT

This course is meant to prepare students to pass the GMAT examination. The GMAT is a standardized assessment administered in English. It allows for admission to business Colleges worldwide. Business Colleges use this test score to predict a potential student's future academic performance in an MBA program or other graduate management programs. The GMAT examination assesses MBA student applicants on their basic verbal, mathematical, and analytical writing skills. Students are strongly encouraged to prepare for and take this test because it allows them to enroll in business and management courses at almost every business college worldwide and provides a highly reputable and objective ranking of their quantitative and analytical capabilities.

Credits: None

MAT 100 - Algebra (GER)

This beginning-level algebra course is designed to help students acquire fundamental knowledge of introductory algebra. Students will learn several skills, including simplifying arithmetic and algebraic expressions (such as exponential expressions, polynomials, rational expressions, and radical expressions), solving equations and inequalities (including linear and quadratic equations), and graphing and analyzing linear equations.

MAT 110 - Finite Mathematics (GER)

This course explores the fundamental concepts of finite mathematics, including trigonometric functions, polynomial functions, the idea of functions, polynomials, exponentials, logarithms, and mathematical induction.

MAT 120 - Modern Mathematics

This course will prepare students to be competent members of society by using major mathematical concepts and skills related to the number system, including actual, natural, integer, and rational numbers, the four arithmetic operations, algebra processes, probability and statistics, and data analysis. Explorations focus on representing, analyzing, and generalizing patterns and the chances of past and future events, as well as asking and answering critical questions about our world through algebra, probability, and data analysis.

MAT 130 - Fundamentals of Pre-Calculus (GER)

This course will cover various mathematical topics and geometry, including matrices, lines, planes, vectors, algebraic systems, equations, and functions with one or more variables, along with their graphical representations. It will emphasize calculations applied to scientific measurements.

MAT 140 - Calculus I (GER)

Explores essential topics such as the meaning, computation, and applications of the derivative, the definite integral, and the fundamental theorem of calculus.

MAT 150 - Foundation of Probability and Statistics (GER)

The course fits into the subject area of mathematics known as probability and statistics. It has the dual objective of providing students with knowledge and understanding of phenomena of a random nature, as well as related methodological and analytical tools that support subsequent courses and have intrinsic value. Introduction to Risk



and Probability provides analytical and modeling tools for dealing with random events, while Introduction to Statistics offers methodological tools for handling arbitrary measurable quantities.

MAT 190 - Matrix Calculus and Operational Research

The course aims to provide students with general notions of matrix calculus, algebra, geometry, and more specific operations research concepts. Matrix calculus is a fundamental tool for scientific computing. Operations research studies models and methods based on techniques introduced for the optimal use of scarce resources (such as production, financial, etc.).

MAT 200 - Logic Computer Science (GER)

The course aims to introduce the student to mathematical logic. It emphasizes its most relevant aspects for introductory computer science training, particularly an adequate familiarity with algebraic structures and their main demonstration techniques.

MAT 210 - Statistics and Machine Learning

The course enables students to acquire fundamental theoretical concepts of Statistical and machine learning, as well as related skills for advanced computational techniques using the tidy-models meta-package. The acquired theoretical knowledge and skills, combined with tidy models, help address typical practical problems in modern Statistical Learning and Automatic Systems.

MAT 240 - Financial Mathematics

In this course, students acquire the essential skills to understand and operate business management processes through the use of mathematical and statistical tools, as well as the fundamentals on which some management analysis tools are based.

MAT 250 - Basic Quantitative Methods

This course on quantitative methods and Excel model building, used extensively in analyzing business decisions, is offered to students who need to become more familiar with these concepts. The quantitative methods course covers manipulating mathematical expressions, introducing statistics and probability, and building basic Excel models.

MAT 300 - Discrete Mathematics

The course aims to introduce the student to discrete mathematics, emphasizing aspects most relevant to a computer scientist's basic training, particularly adequate familiarity with algebraic structures, combinatorial calculus, and the main demonstration techniques.

MAT 320 - Computability and Complexity

The course introduces algorithms, the problems they can solve, and the cases in which they require resources that are inaccessible in practice. It first deals with computability theory from both mathematical perspectives—Turing machines, recursive functions—and perspectives related to programming languages. Then, the various criteria for measuring available resources (time, memory) and complexity classes are discussed. Presentation of the problem $P = NP$.

MAT 330 - Mathematical Analysis

The course aims to present the basics of functions, graphs, and their transformations, introduce concepts of the derivative and definite integral, and illustrate the use of analytical techniques in studying discrete phenomena. It provides knowledge related to the fundamental mathematical and methodological concepts and tools needed to describe, schematize, and interpret the main aspects of the reality around us. In particular, the course aims to enhance students' comprehension skills and enable them to develop a rigorous and analytical approach to reasoning and tackling new problems. The significant presence of theorems, many with proof, is intended to strengthen the student's logical-deductive attitudes learned in the Discrete Mathematics and Logic course.

MAT 340 - Algorithms and Data Structures

It aims to introduce the fundamental concepts and techniques of algorithm analysis and design, which are the basis of software development. Students will learn to analyze the correctness and computational complexity of algorithms, as well as data structures for representing information, and develop problem-solving techniques by creating efficient algorithms. The teaching is supported by a laboratory, which is an integral part of implementing and testing algorithms and data structures using an imperative, object-oriented language.

14.3.3.3 Natural Science

NSC 100 - Basic Life Science (GER)

This course emphasizes the fundamental principles of biology, including cell structure and function, genetics, ecology, evolution, and organism biology. It also discusses how these principles can be applied to societal issues such as biodiversity conservation, overpopulation, global environmental changes, biotechnology, and human wellness and disease.



NSC 110 - Current Issues in the Natural Sciences

This course provides a comprehensive overview of critical environmental issues. By exploring these issues and discussing various perspectives, students will develop a solid and valuable foundation in ecological knowledge. This knowledge will enable them to make crucial decisions that will shape the future of their society.

NSC 120 - The Earth and Its Natural Environment

This laboratory-based course discusses topics from astronomy, atmospheric science, geology, geography, and oceanography. It illustrates fundamental concepts and earth processes with a comprehensive overview of the interrelationships among these disciplines. It emphasizes the nature of science and the relationship between the earth sciences and society.

NSC 150 - Introduction to World Geography (GER)

A survey of the world's countries' historical, economic, environmental, and organizational properties through geographic themes and concepts. Discussions will focus on the developed countries in North America, Europe, and Australia, as well as developing countries in Central and South America, the Middle East, and Africa.

NSC 200 - World Regional Geography (GER)

This survey examines the historical, economic, environmental, and organizational qualities of the world's countries through geographic themes and concepts. The discussion will then focus on developed countries in North America, Europe, and Australia, as well as developing countries in Central and South America. Studies of the ex-Soviet Union, the Middle East, and Africa will also be included.

NSC 230 - Natural Resources (G)

This course is a global discussion about natural resources and their management. Students will explore the social, scientific, and political implications of exploiting the environment, using and abusing renewable resources, and various natural resources, including fossil fuels, and their relationship to sustainability.

14.3.3.4 Physics

PHY 200 - Physics (GER)

This calculus-based course introduces the fundamental principles of two- and three-dimensional motion, Newton's laws, the statics and dynamics of rigid body motion, waves and wave motion, work-energy relations, and the conservation laws of energy and momentum.

PHY 350 - Physics for Virtual Reality Applications

The course aims to provide students with a basic understanding of physics, covering applications ranging from mechanics to optics, and teaching them to recognize the underlying physical principles and laws, as well as develop the equations necessary to describe them.

14.3.4 College of Health Sciences

14.3.4.1 Nursing Sciences

NUR 120 - Indigenous Health (G)

This course introduces the history of Indigenous health, health disparities among Indigenous people, traditional health knowledge, social determinants of health, health services, health promotion, disease prevention, public health interventions, and intergovernmental health policy issues.

NUR 130 - Introduction to Public Health

This course provides a comprehensive overview of public health principles, history, core functions, essential services, and justification for public health interventions.

NUR 140 - Global Health Disparities (G)

This course focuses on health disparities, health systems, and governance, with an emphasis on infectious and chronic diseases, as well as policy development to address global health challenges.

NUR 150 - Evidence-Based Nursing

The Evidence-Based Nursing integrated course will focus on identifying the contribution of research in the management of care pathways, e.g., non-exhaustively, by learning about the scientific research process, formulating clinical care research questions, identifying research approaches and types of studies, and understanding research methods in the scientific literature.

The following modules formulate this course:

- **NUR 150A - RESEARCH METHODOLOGY AND BIBLIOGRAPHICAL RESEARCH METHODS**

This module discusses and identifies the contribution of research to care pathway management. It aims to integrate students' knowledge and skills in researching and evaluating the results of international nursing, midwifery, and biomedical research.

- **NUR 150B - EPIDEMIOLOGY**



This module identifies research approaches and study designs in the field of epidemiology. It aims to help you understand the research methods applied to Public Health to define causal associations between risk factor(s) and health outcome(s).

- **NUR 150C - STATISTICS**

This module provides the student with statistical knowledge. Specifically, it aims to provide students with knowledge of statistical methods applicable to medical research in a practical setting. The techniques will first be introduced from a theoretical perspective and then applied to examples based on actual data.

NUR 170 - Structure and Morphology of the Human Body

The Structure and Morphology of the Human Body integrated course will provide the student with knowledge of cellular functions and the basis of genetics needed to understand the transmission of hereditary characteristics and the main hereditary pathologies. It also provides a biochemical preparation suitable for understanding the macromolecules of biological interest and the significance of the metabolic events. Finally, it provides students with knowledge of the organization of the human body, utilizing appropriate anatomical terminology, including understanding of individual organs and systems, with a particular emphasis on form-function relationships.

This course consists of the following modules:

- **NUR 170A - HUMAN ANATOMY**

This module provides students with knowledge of the organization of the human body, using appropriate terminology, and an understanding of the different organs and systems, with a particular focus on the relationship between form and function.

- **NUR 170B - BIOCHEMISTRY**

This module provides adequate preparation in chemistry and biochemistry, enabling students to appreciate the importance of macromolecules of biological interest and the significance of central metabolic events. It also provides the student with the basic knowledge of the organization of several metabolic signaling pathways and the relevant terminology, paying particular attention to the relationship between form and function.

- **NUR 170C - APPLIED BIOLOGY**

This module provides the student with knowledge of cellular functions and the basics of genetics necessary for understanding the transmission of hereditary characteristics and primary hereditary diseases.

NUR 190 - Functioning of the Human Body

The integrated course on the Functioning of the Human Body will focus on the study of firmly integrated principles (electricity and cell membrane, principles of hydraulics, and cardiovascular system, to name a few examples). To this end, the teachers will provide the students with examples that can be traced back to the individual modules applied in the human field (Bernoulli's theorem/aneurysm and stenosis; Hagen-Poiseuille law/hydrodynamic resistance of the systemic circulation).

This course consists of the following modules:

- **NUR 190A - PHYSICS I**

This module confers the basic knowledge of physics principles necessary to understand the principles underlying biological mechanisms.

- **NUR 190B - PHYSIOLOGY**

Physiology studies the functions of a living organism and its various parts, encompassing both physical and chemical processes. This module, part of the integrated course "Functioning of the Human Body," aims to help students understand the primary physiological mechanisms that underpin human functioning.

- **NUR 190C - IMAGING AND RADIOPROTECTION**

This module provides the basic knowledge of diagnostic imaging and radiotherapy principles necessary to understand current diagnostic imaging procedures. It also includes knowledge of radiation protection regulations.

NUR 200 - Pathology and Laboratory Diagnostics

The integrated course in Pathology and Laboratory Diagnostics aims to provide knowledge of the basic principles of general pathology, pathophysiology, immunology, microbiology, clinical microbiology, clinical pathology, and transfusion medicine. By understanding the causes and mechanisms that determine diseases and the primary methods of clinical analysis, it will be possible to comprehend the fundamental events and processes that can alter an individual's health status and inform effective and personalized diagnostic and therapeutic pathways.

This course consists of the following modules:

- **NUR 200A - GENERAL PHYSIOPATHOLOGY, IMMUNOLOGY, AND GENERAL PATHOLOGY**

This module aims to outline the various genetic and environmental (chemical, physical, and biological) factors that contribute to the onset of major diseases. Describe the elementary pathological phenomena that occur at the level of cells and tissues; Illustrate the forms of inflammatory processes and their effects at the level of the body; Provide the basic knowledge for understanding the mechanisms underlying the immune response and diseases resulting from their alterations; Provide the basic knowledge for understanding neoplastic diseases; Describe the pathophysiological mechanisms underlying cardiovascular diseases, diseases of the



hematopoietic system, and some organ failures; and, describe the pathogenesis and consequences of some metabolic diseases.

- **NUR 200B - MICROBIOLOGY AND CLINICAL MICROBIOLOGY**

This module aims to impart knowledge about the main microorganisms (bacteria, viruses, fungi, parasites) responsible for human infections. In particular, the following will be explored: the general characteristics and mechanisms of pathogenicity of the main microorganisms (bacteria, viruses, fungi, and parasites) responsible for infections in humans; the control of microbial growth; antimicrobial therapy and the importance of resistance; preventive/therapeutic approaches to infectious diseases; the general principles of microbiological diagnostics and, major contagious complications related to nursing procedures, conditions that can promote the occurrence of infections, and related prevention methods.

- **NUR 200C - CLINICAL PATHOLOGY AND TRANSFUSION MEDICINE**

This module aims to provide the primary theoretical and practical knowledge in the field of Clinical Pathology and Transfusion Medicine, including the central clinical laboratory methods and practices of immunohematology and transfusion medicine with particular reference to the primary laboratory tests functional for the nursing management of the patient in the medical and critical care area and the management of transfusion of blood products and other blood components.

NUR 230 - General Nursing

The integrated course in General Nursing provides the essential elements for developing specific competencies in nursing. Students must understand the importance of interpersonal relationships in care activities and the interaction between the individual and health within the disciplinary corpus of Nursing. The proposed program will also enable students who have not previously acquired disciplinary knowledge to achieve the specified training objectives.

This course consists of the following modules:

- **NUR 230A - SOCIOLOGY OF HEALTH**

This module aims to describe and analyze the multiple connections between subjectivity, social dimensions, and health and to initiate a critical reflection on the social dimensions of the care process. At the end of the module, students will be able to recognize some of the social dimensions of the care process that characterize nursing work and analyze the social and socio-economic determinants of illness, the medicalizing aspects of contemporary society, and the relationship between global health and social distress.

- **NUR 230B - SOCIAL PSYCHOLOGY**

This module aims to provide the essential elements of general, social, and clinical psychology; provide knowledge and professional skills in recognition of psychological variables and their clinical value in the encounter with the patient and family and in the helping relationship, particularly in situations of crisis/fragility; encourage the ability to use conscious communication modalities functional to teamwork and to improve the patient's adherence to treatment and, to foster the capacity of the nurse to autonomous reflection and negotiation within the team and in the clinical approach.

- **NUR 230C - NURSING DIAGNOSIS**

This module covers formulating nursing diagnoses using the NANDA and PMN methods. According to the NANDA method, nursing diagnoses provide the basis for selecting nursing care interventions to achieve the goals for which the nurse is responsible. It is composed of elements that facilitate the adoption of a shared nursing language. The PMN - Professionalizing Method of Nursing - consists of two tools: the first allows for assessing the care complexity of the person being cared for, while the second provides for estimating the related human resource requirements. PMN uses as its basis the taxonomic model developed by the World Health Organization, which was chosen because it operates through a series of categories grouped according to the "biopsychosocial" model, which looks at the whole person and thus not only from the health point of view but also in the daily routine of social relations.

NUR 250 - General Clinical Nursing

The General Clinical Nursing Course provides students with knowledge of health and disease states while considering fundamental needs. It also provides tools for describing the patient's health status according to clinical stability, responsiveness, independence, and context (PMN) criteria. The contents of pharmacology and dermatology contribute to the development of the ability to evaluate clinical / nursing conditions in various areas of professional practice.

Credits: 6 CH

This course consists of the following modules:

- **NUR 250A - DERMATOLOGY**

This module imparts knowledge to students that will help them understand the physiological processes of people's skin at different ages and identify major skin disease processes and related interventions.

- **NUR 250B - PHARMACOLOGY I**

This module aims to provide students with a foundation in basic scientific concepts and principles that will serve as a basis for understanding the pharmacology of specific drugs, including pharmacokinetics,



pharmacodynamics, metabolism, dosage, and toxicity. The scientific basis of the mechanisms by which two different drugs can interact within the body and have undesirable effects on drug concentrations or their clinical effects will be covered. The mechanism of action, significant side effects, and clinical use of some commonly used drug classes will also be addressed: antibiotics, gastrointestinal tract drugs, pain medications, anxiolytics, and antidepressants.

- **NUR 250C - CLINICAL NURSING I**

This module problems and interventions (technical, relational, and educational) related to infection prevention; prevention and treatment of pressure injuries; sleep and rest; mobility and mobilization of the person; body temperature management; perioperative care; acute/chronic pain management; major cardiovascular problems and thromboembolic complications; assessment of basic vital parameters (noninvasive blood pressure, heart rate, and saturation testing); and self-care of the person being cared for are analyzed and addressed.

- **NUR 250D - CLINICAL NURSING II**

This module identifies significant problems and related interventions (technical, relational, educational) in breathing, urinary and fecal elimination, and nutrition. It also covers the nurse's responsibility in managing drug therapy.

NUR 290 - Communication and Therapeutic Education

This course identifies and clarifies the meaning of the pedagogical dimension in nursing, both in terms of theoretical reflection on concepts related to education and training, and in terms of highlighting, through everyday discourse referring to human lived experience, the experience of illness, its existential meaning, and its formative educational implications. The course also discusses how to identify devices and practices that support an educational/training journey related to the outcomes of the lived experience of health.

Credits: 2 CH

This course consists of the following modules:

- **NUR 290A - MEDICAL ANTHROPOLOGY**

The Medical Anthropology module aims to provide a fundamental understanding of the discipline's key notions, concepts, and techniques through a general overview of the most relevant anthropological currents. It also analyzes the social phenomena and cultural production that characterize our society, which is beneficial for the practice of the health profession. Understanding concepts such as health, disease, and altered dimensions of health, including in international contexts, will receive special attention.

- **NUR 290B - GENERAL AND SOCIAL PEDAGOGY**

This module aims to promote the acquisition of fundamental pedagogical concepts related to the caring professions.

- **NUR 290C - NURSING APPLIED TO THERAPEUTIC EDUCATION**

This Therapeutic Education module is an educational modality designed for patients with chronic conditions, their family members, and caregivers, and is systematic, integrated, and personalized within the care pathway. It is always patient-centered, aiming to enable individuals to live with their illness and disability in the most optimal way. This module aims to equip individuals with knowledge, skills, and self-care and self-management strategies to enhance their quality of life. The focus is on the therapeutic relationship with the patient, led by the nurse who serves as both educator and caregiver.

NUR 300 - History, Deontology, and Professional Ethics

The course aims to illustrate the historical evolution of the nursing profession, as well as the concepts of health, medicine, and nursing care, contextualizing them within the current organization of services and the development of the profession. Fundamental aspects of the nursing code of ethics will be enunciated, as the rules of professional ethics and principles outlined in the codes about the profession, the service provided to users, organizations, and society, and the implications described in the disciplinary codes of the institutions to which they belong. We will cover the fundamentals of ethics and bioethics, as well as the most significant models applied in healthcare regarding the main bioethical issues concerning the beginning and end of life, conditions of diversity and disability, social inequalities, and disparities in resources. We will also describe the primary legal and ethical responsibilities in nursing and address medico-legal issues specific to the nursing profession, including informed consent, professional secrecy, and obligations to judicial authorities.

Credits: 2 CH

The following modules formulate this course:

- **NUR 300A - THE HISTORY OF NURSING**

This module analyzes the historical evolution of health, medicine, nursing concepts, and the code of ethics. At the end of the teaching, the student will be able to understand and apply the principles and rules of ethical and deontological action, health protection, and the rights of the individual being assisted.

- **NUR 300B - MEDICAL GENETICS**

This module provides students with an overview of the implications of genetic bases in different pathological situations, particularly those of most significant interest in nursing practice. Specifically, the student will know



that it is necessary to describe the genetic basis of human diseases and the means available to diagnose hereditary diseases, explain the genetic component of numerous diseases, outline the knowledge derived from the human genome project, the impact this has had in health care, and the diagnostic and therapeutic possibilities of diseases with a genetic basis, and describe the latest information on the genetic basis of cancers, drug response, and transplantation.

- **NUR 300C - FORENSIC MEDICINE**

This module aims to help students acquire the legal concepts of criminal and civil law, address the medical-legal issues specific to the nursing profession, particularly informed consent, professional secrecy, obligations to judicial authorities, and recognize injuries of medical-legal significance.

NUR 320 - Clinical Nursing in the Medical Area

During this course, pathophysiological processes, clinical, diagnostic, and therapeutic elements will be identified concerning the central pathological states; the diagnostic, therapeutic, and care pathway of the assisted person will be illustrated; the main problems of the assisted person and related evidence-based interventions about the main pathological pictures will be highlighted; the main signs and symptoms related to the different pathologies will be illustrated; and, finally, the characteristics of the main categories of drugs, therapeutic, side and toxic effects will be defined.

Credits: 4 CH

This course consists of the following modules:

- **NUR 320A - INTERNAL MEDICINE**

The module aims to provide elements of a decision-making process for diagnosing primary diseases in rheumatic, hematological, and dysmetabolic syndromes.

- **NUR 320B - GASTROENTEROLOGY**

The module aims to provide elements of a decision-making process for diagnosing major gastrointestinal, endocrinological, and metabolic diseases and rationally setting up medical and surgical therapy.

- **NUR 320C - NEPHROLOGY**

The module aims to provide an overview of the decision-making process for diagnosing primary diseases in the nephrological field and rationalizing medical and surgical therapies.

- **NUR 320D - PHARMACOLOGY II**

This module discusses the pharmacology, mechanism of action, main side effects, and clinical use of some commonly used classes of drugs, including those for the cardiovascular and blood systems, medications for the respiratory system, and drugs for treating diabetes and dyslipidemia. The purpose of teaching is to provide theoretical knowledge that will enable the student to plan the use of drugs in the most effective way possible to improve the health status of patients of all ages, groups, and communities.

- **NUR 320E - MEDICAL CLINICAL NURSING**

In this module, the care pathway for the assisted person is illustrated by recognizing the person's primary problems and related evidence-based interventions associated with the main pathological conditions.

NUR 340 - Surgical Clinical Nursing

In this course, cognitive, clinical judgment, communication, and gestural skills are developed, which are necessary for caring for individuals with health problems requiring surgical treatment in both elective and emergency settings, selected based on their epidemiological relevance and exemplarity. The problems treated include gastrointestinal, biliary-hepatic, vascular, metabolic, thoracic, and serological neoplasms of the breast, lung, larynx, prostate, and bladder, as well as traumatic and degenerative pathological conditions affecting the musculoskeletal system.

This course consists of the following modules:

- **NUR 340A - GENERAL SURGERY**

This module covers the main areas of surgical treatment, including diseases of the abdomen, breast, head and neck, blood vessels, and digestive system. Surgeons also care for patients who have been injured or have deformities or other conditions that require surgery.

- **NUR 340B - LOCOMOTOR SYSTEM DISEASES**

In this module, the student should acquire knowledge of orthopedic pathology, including general and segment-specific traumatic injuries, degenerative diseases such as osteoarthritis and rheumatic arthropathies, osteoporosis, orthopedic diseases of childhood and adolescence, neoplastic localizations of the musculoskeletal system, and subspecialty segment surgery.

- **NUR 340C - EMERGENCY SURGERY**

In this module, problems of surgical interest related to the gastrointestinal, biliary-hepatic, vascular, metabolic, thoracic, and breast areas are treated; breast neoplasm, lung neoplasm, laryngeal neoplasm, prostate neoplasm, and bladder neoplasm are treated; traumatic and degenerative pathological conditions will be treated in the musculoskeletal system.

- **NUR 340D - SURGICAL CLINICAL NURSING**

This module is based on scientific evidence. It identifies the main problems that the person undergoing surgery may encounter during the perioperative, functional recovery, and rehabilitation phases, as well as the related



nursing interventions. Students should be able to describe the main assessment scales used in the perioperative phase, identify the clinical manifestations of the main complications in the intra- and postoperative phase and the criteria for prevention; they should be able to describe the main problems experienced by the sick person in the surgical pathway or that need to continue treatment at home and that require educational/relational interventions and the related care-taking pathways for the patient.

NUR 360 - Mother and Infant Nursing Care

The Mother and Infant Nursing Care course focuses on the study of maternal and infant nursing, with nursing care plans that emphasize these areas. It covers all essential aspects of prenatal care, pregnancy and labor, newborn care, complications during pregnancy, and postnatal care. Major topics covered are guidelines for prenatal care, pregnancy and labor procedures, newborn care practices, postnatal care instructions, management of pregnancy complications, and maternal and child health nursing.

This course consists of the following modules:

- **NUR 360A - GYNECOLOGY AND MIDWIFERY**
This module addresses issues related to the welfare, prevention, and study of benign and oncological gynecological diseases, urogynecology, and pregnancy from conception to delivery.
- **NUR 360B - GYNECOLOGICAL AND MIDWIFERY NURSING**
In this module, students will learn how to plan, deliver, and evaluate preventive, curative, palliative, and rehabilitative nursing care in the obstetric-gynecologic field, with respective informational, educational, and supportive aspects.
- **NUR 360C - PEDIATRICS**
This module covers all aspects of neonatal and infant care, including the average infant and its diseases, feeding during the various stages of a child's growth, and feeding in certain pathological conditions. General Auxology (stature-ponderal growth of the child and pubertal and sexual development of the adolescent) and growth of the various organs and systems. Childhood rash diseases and significant diseases of the child; Generic and specific prevention of infectious diseases (active and passive). In addition, the basic needs of the child and his psychophysical development, the concept of illness and hospitalization for the child and parent, and regular and pathological puberty.
- **NUR 360D - PEDIATRIC NURSING**
This module identifies the unique characteristics and needs of pediatric nursing care across various stages of development for individuals of different ages. Describe the methods and tools used to promote the well-being of the hospitalized infant/child/adolescent, and describe some methods and tools that can be used to humanize care in the hospital; describe the admission/care/discharge process of the infant/child/adolescent undergoing surgery (differences with adult); explain the Pediatric Triage process, tools that can be used for early recognition of clinical worsening, and its management in the hospitalized infant/child/adolescent and at home; describes the main care procedures in the care of the infant/child with acute and chronic pathology. It also describes the acute and chronic pain detection tools used in Pediatrics, how to manage pain, the principles of drug therapies, and methods for safe drug administration in infants and children.

NUR 380 - Clinical Nursing in Chronic Illness, Disability, and Palliative Care

In Clinical Nursing in Chronic Illness, Disability, and Palliative Care, students will learn to identify the stages of caring for individuals with chronic pathology from a multidisciplinary perspective.

Specifically, they will learn about the main symptoms related to oncological pathology and its treatment; they will learn about the main routes of administration of antineoplastic drugs and the implications for care; they will learn about the primary pathological states of the senior age with emphasis on cardiological, dysmetabolic, respiratory problems, and methods of Multidimensional Assessment of the elderly patient; they will learn about the neurobiological basis of aging and degenerative diseases of the Nervous System.

Credits: 4 CH

This course consists of the following modules:

- **NUR 380A - MEDICAL ONCOLOGY AND PALLIATIVE CARE**
This module covers the primary biological basis of neoplastic processes, including epidemiology, risk factors, prevention, diagnosis, and staging of the most significant adult solid neoplasms. It also addresses the indications and toxicities of conventional and innovative treatments in oncology, as well as supportive therapies. Additionally, it explores the main nursing issues in oncology.
- **NUR 380B - NEUROLOGY AND NEUROREHABILITATION**
The module aims to provide an overview of the decision-making process involved in diagnosing neurological disorders from a multidisciplinary perspective at various stages of the disease. To accomplish this, the student should be familiar with the anatomical and physiological basis of the nervous system and be able to identify the presence of major neurological disorders.
- **NUR 380C - GERIATRICS**
This module presents the most common geriatric conditions and analyzes the basis for proper geriatric patient management, seeking to foster a culture of multidimensional assessment.



- **NUR 380D - NURSING CARE IN CHRONIC ILLNESS AND DISABILITY**

In this module, the care pathway for the assisted person is illustrated by recognizing the main problems of the person and related evidence-based interventions associated with the primary pathological conditions. The student will learn how to integrate nursing knowledge, skills, and attitudes to deliver safe nursing care that improves the health outcomes or compensatory state of the person being cared for. Additionally, students will learn how to plan the delivery of nursing care in collaboration with the user and the interdisciplinary care team.

NUR 390 - Critical Care Nursing

This course aims to impart knowledge that will enable students to recognize a patient with vital instability and at risk of cardiac arrest to be able to describe the main problems related to acute and chronic cardiac diseases, to know how to interpret ECG/telemetry to recognize potentially malignant arrhythmias; and to have knowledge of the main diagnostic/therapeutic procedures in cardiology (coronarography, electrophysiological study and possible ablation, PM/ICD implantation). In addition, the course should equip students with the skills necessary to manage a patient in cardiac arrest and the early stages of spontaneous circulatory recovery, as well as to address, from a nursing perspective, the significant problems encountered in emergency and critical care areas.

Credits: 6 CH

This course consists of the following modules:

- **NUR 390A - ANESTHESIOLOGY AND INTENSIVE CARE THERAPY**

This module addresses how to recognize a patient with vital instability and at risk of cardiac arrest, how to manage a patient in cardiac arrest and the early stages of spontaneous circulatory recovery, how to manage a sick person in a critical area, how to work in emergency conditions, and how to activate and cooperate in an emergency team.

- **NUR 390B - CARDIOVASCULAR DISEASES**

This module aims to help students learn about the primary cardiac pathologies of interest. In its overall content, the teaching allows the acquisition of fundamental skills for managing clinical care issues in intensive and sub-intensive cardiology settings. The course provides valuable theoretical knowledge in designing safe and evidence-based nursing care through applying the nursing process. It also provides the tools to analyze and interpret data collected through nursing assessments accurately.

- **NUR 390C - EMERGENCY MEDICINE**

The module aims to help the student acquire knowledge and skills to be able to manage severe bleeding for life to be able to describe the correct treatment of the polytrauma patient according to international guidelines to be able to explain the principles of interpretation of emergency blood chemistry tests and blood gas analysis; to be able to manage significant internist emergencies (aortic pathology, pulmonary embolism, etc.); to be able to describe the treatment of substantial organ failure; and, finally, to improve the teamwork attitude.

- **NUR 390D - CRITICAL CARE AND EMERGENCY NURSING**

This module aims to lead the student to know how to recognize the deteriorating patient according to the ABCDE assessment scheme, know how to identify and treat cardiac arrest (BLSD and ALS), learn how to manage the leading causes of cardiac arrests, describe the proper treatment and care of the polytrauma patient according to international guidelines; describe the techniques of immobilization, atraumatic mobilization, and transport; describe invasive and noninvasive monitoring techniques; describe the care of the person on invasive and noninvasive ventilation; describe the nursing care of major cardiological emergencies (arrhythmias, cardiogenic shock, myocardial infarction) and significant neurological emergencies (stroke). In addition, the student should be able to describe the nursing care of the unconscious patient and the potential organ donor, describe the nursing care and treatment of significant organ failure, and, finally, be able to describe the main organizational models of the intra- and extra hospital rescue chain and the intra- and extra-hospital triage.

NUR 400 - Psychiatric Clinical Nursing

In this course, students will learn about and understand mental health in both the hospital and the community. They should also gain knowledge of nursing assessment methods and care strategies for mental distress.

This course consists of the following modules:

- **NUR 400A - CLINICAL PSYCHOLOGY**

This module describes and analyzes the most current theoretical orientations in psychiatry and clinical psychology (neuro-biological, psychodynamic, social, etc.) and interpretative models of psychic suffering; how to recognize psychic suffering in histories of illness; how to identify the primary defense mechanisms and psychopathological pictures, including pathological addiction problems and frequently used drugs (indications, side effects, toxicity).

- **NUR 400B - CLINICAL PSYCHIATRY AND MENTAL HEALTH**

This module will identify and analyze aspects of mental health in the field of psychiatry. It will also outline the definition of Mental Health, the most current theoretical orientations in psychiatry, and interpretative models of mental suffering.

- **NUR 400C - CLINICAL NURSING IN PSYCHIATRIC AND ADDICTIONS**



This module discusses mental health in the hospital and territorial area, as well as nursing assessment methods. Nursing strategies for treating mental distress are analyzed by integrating knowledge gained with skills and attitudes to deliver safe and effective nursing care.

NUR 410 - Healthcare Management

The course Healthcare Management aims to help students understand and comment on the main pivotal elements of healthcare organization in the light of international reference systems and the regulations underlying system choices, to understand the elements characterizing the organization of care within the broader business system and its impact on the nursing profession.

This course consists of the following modules:

- **NUR 410A - ADMINISTRATIVE LAW**

In this module, situations in professional practice that involve the protection of privacy and how to protect it to avoid the sanctions provided are analyzed. The rules that affect healthcare professionals, including professional secrecy, personal injury, legal professional liability, and legal figures, will be explained. The rights and duties of the health care professional in dependency and freelance practice will be identified.

- **NUR 410B - ORGANIZATION AND MANAGEMENT OF HEALTHCARE SERVICES**

This module highlights the key elements of healthcare organizations in the context of international reference systems and regulations that underpin system choices. It also teaches how to design, analyze, and evaluate care processes, as well as understand the fundamental aspects of clinical care management, with a focus on economic mechanisms.

- **NUR 410C - MANAGEMENT AND EVALUATION OF HEALTHCARE**

In this module, students are guided through the field of general and clinical nursing science to understand nursing interventions, the clinical method that guides a practical approach to care, the operational techniques of intervention, and the evidence that informs decision-making.

NUR 415 - Tutorial Teaching and Applied Teaching Methods in Nursing

The course aims to provide nursing students with the necessary knowledge of the Principles, Teaching Methods, and skills for planning and performing exemplary teaching in the context of Nursing. It also aims to help students develop positive attitudes towards the educational nursing role at all levels of Healthcare Services.

NUR 420 - Health Promotion, Disease Prevention, and Community Nursing

The course "Health Promotion, Disease Prevention, and Community Nursing" addresses the specific aspects of the Public Health model, including the concepts of individual, community, and organizational empowerment. It analyzes health promotion, prevention, health education, and therapeutic education. Nutritional screening tools and procedures for assessing nutritional status are described, defining the decision-making pathways and operational modes of oral and artificial (enteral and parenteral) nutrition, including patient monitoring.

This course consists of the following modules:

- **NUR 420A - HYGIENE AND HEALTH EDUCATION**

This module aims to acquaint students with the scientific assumptions and methodological foundations for safeguarding and promoting individual and community health, particularly in the context of Health Education. It provides the methodological foundations of Hygiene in general and applies them to different contexts (environmental, personal, community, professional, food, etc.).

- **NUR 420B - CLINICAL NUTRITION**

The module provides students with the knowledge to recognize and understand changes in nutrition in the clinical setting, including nutritional needs modified by the presence of disease, nutritional risk, and malnutrition, as well as the tools to assess nutritional status and address the needs of patients and caregivers.

- **NUR 420C - LABOR HEALTH**

This module provides an overview of critical occupational safety and health issues. It will focus not only on occupational safety and health law and its standards (or lack thereof) but also on the broader policy agenda of the global economy and its impact on the safety and health of workers worldwide.

- **NUR 420D - PREVENTIVE AND COMMUNITY NURSING**

This module discusses the concept of health as a dynamic, multidimensional, individual and social process; the process of change from a reactive, individual-centered model of health care to a proactive, community-centered model; the meaning of family and community; the guiding principles and elements that characterize community work (participatory change, empowerment, and resource development). This module will also teach how to ascertain the state of nutrition through the analysis of body composition using anthropometric and bioimpedance techniques, how to know the prerequisites of proper nutrition under particular physiological conditions, how to implement nutritional protocols to prevent and treat important acute and chronic diseases, how to identify health problems, trace the natural history of a disease, describe risk factors and preventive interventions that can be applied at various stages of life, and set collective and individual prevention goals. How to design, implement, and evaluate preventive interventions.



NUR 470 - Internship I

At the end of the first internship period, the student will be able to perform the general objective examination of the adult about the activities and theoretical knowledge already acquired, know how to collect nursing data using the teaching record - learn how to use the specific terminology to adequately describe nursing problems (NANDA Taxonomy) know how to identify, consistent with the skills acquired in the theoretical courses already passed, the nursing care needs of the Assisted Person and the community and the related nursing objectives. Will know how to plan for the identified priority nursing diagnoses, appropriate interventions, and criteria for evaluating the care provided.

Prerequisite: Permit of the Instructor

Credits: 8 CH

NUR 475 - Internship II

Internship II should lead the student to know how to assess by apparatus and pattern in the adult and a complete general objective examination; know how to identify in order of priority of intervention nursing diagnoses and collaborative problems; - know how to plan major interventions related to clinical care conditions addressed during a study about the Nursing Diagnoses and Collaborative Problems identified; to know the correct application of diagnostic-therapeutic prescriptions; to know how to indicate the criteria for evaluating the outcome of nursing care delivered to the person being cared for; to know how to correlate the results of instrumental and laboratory examinations with the clinical examinations addressed during study.

Prerequisite: Complete the required hours and examination for Internship I. **Credits:** 10 CH

NUR 480 - Internship III

At the end of the clinical internship period, the student will be able to solve complex and straightforward nursing problems; apply the nursing process in any context; use scientific evidence in decision-making; know and be able to use nursing care design tools; be able to contribute to the education of students and support staff; be able to design educational plans aimed at the patient, family, and community when required; be able to apply principles of health service organization; and be able to manage episodes of basic cerebrovascular resuscitation and with advanced techniques.

Prerequisite: Complete the required hours and examination for Internship II.

Credits: 12 CH

NUR 495 - Senior Project

The senior project may take many forms: a group project to pursue an identifiable problem with a faculty sponsor or to choose a topic for critical review.

Prerequisite: 90 Credits

NUR 510 - Human Sciences

The course aims to present a historical perspective on the evolution of medical thought and the scientific advancements in medicine within the context of cultural frameworks from the 17th century to the present day. It will also be profoundly concerned with the characteristics of establishing certain scientific paradigms and their ideological crises of change. Some general themes related to the anthropology of the person, gender, and illness will also be presented to integrate the issues faced by nursing practitioners, framing them within a broad and multicultural perspective.

Credits: 4 CH

The topics covered are divided into the following modules:

- NUR 510A - CULTURAL ANTHROPOLOGY
Topics discussed: Brief introduction to cultural anthropology with emphasis on the issues of medical anthropology, gender, anthropology of reproduction, and the life cycle.
- NUR 510B - SOCIAL PSYCHOLOGY APPROACHES
Topics discussed: Fundamental psychosocial processes that characterize a group, with particular attention to psychosocial processes that can foster or hinder decision-making processes and similarities and differences between group and workgroup—applying theoretical aspects to the analysis of concrete, profession-related situations.
- NUR 510C - SOCIOLOGICAL APPROACHES TO CULTURAL DEVELOPMENT
Topics discussed: Provide students with theoretical and analytical tools to read and interpret cultural and communicative processes, particularly those related to health and illness.
- NUR 510D - RESPONSIBILITY AND ETHICS
Topics discussed: Provide the student with knowledge about the lawfulness of the Health Care Act, the capacity to act, and the protection of confidentiality and privacy. Reporting to the Judicial Authority of crimes against life (homicide) and against individual safety (personal injury). Causality in criminal, civil, and administrative-accounting health professional liability. Compensation for personal injury.

NUR 520 - Management I

This course will identify the organizational, economic, and sociological aspects of a healthcare organization; apply the theoretical concepts of the sociology of the professions; identify organizational models and related



responsibilities about patient complexity, workloads, and available and activatable resources; and, last but not least, how to identify the economic aspects of a health care system, the composition, and dynamics of health care spending and health care need.

Credits: 5 CH

The course is designed in the following modules:

- NUR 520A - HEALTH CARE ECONOMY
Topics discussed: Supply and demand in healthcare.
- NUR 520B - PUBLIC LAW
In this module, students will gain an understanding of the general constitutional context and specialized notions related to the healthcare system.
- NUR 520C - HEALTHCARE MANAGEMENT I
Topics discussed: The healthcare system, including typology, financing arrangements, essential levels of care, priority setting, public and private service providers, the organization's components and their interactions, quality management system models, Health Technology Assessment, and supporting economic evaluations.
- NUR 520D - MEDICAL MANAGEMENT IN THE PROFESSION
Topics discussed: Workplace hygiene and safety; prevention of risks related to patient handling; and biological hazards and their management.
- NUR 520E - THEORY AND METHODS IN NURSING PROFESSIONAL MANAGEMENT I
Topics discussed: Legislative aspects, articulation, and functions of the health professions; staffing levels of the professions; organizational models and the organizational model by intensity of care; clinical governance and organizational design.

NUR 530 - Management II

The Course, which is the logical continuation of Teaching of Management I, is developed according to a logical and temporal sequence. The first part focuses on the public health company, specifying its norms, rules, and procedures governing its operation. It continues with the primary management systems: (i) the planning and control system, (ii) the human resource management system, and (iii) risk management.

Prerequisite: NUR 520 Management I

Credits: 4 CH

The course is designed in the following modules:

- NUR 530A - HEALTH MANAGEMENT II
The topics discussed included cost accounting in healthcare companies, budgeting, controlling responsibility centers and performance indicators, management control by activities and processes, reporting, risk management, and the function and organization of a risk management system in healthcare.
- NUR 530B - THEORY AND METHODS OF PROFESSIONAL MANAGEMENT AND APPLICATIONS IN NURSING II
The topics discussed were how human resources are acquired, staff scheduling and organization, resource development, staff evaluation, meeting management, conflict management, and negotiation.
- NUR 530C - LABOR LAW CONTRIBUTIONS
The topics discussed included labor legislation, corporate bargaining, working hours and overtime, the employment relationship (full-time and part-time), corporate mobility of human resources, and strategies for acquiring human resources.
- NUR 530D - ADMINISTRATIVE LAW CONTRIBUTIONS
The topics discussed included principles governing the functioning of public administration (privacy, security, transparency), administrative acts, company acts and their hierarchy, rules and regulations for acquiring human and material resources, and the structures responsible for acquisition.
- NUR 530E - BUSINESS HEALTH ECONOMICS CONTRIBUTIONS
The topics discussed included the financing of the healthcare system, the economic flows of healthcare companies, the budget, strategic planning logic, content, stages, and tools, as well as management control logic, content, stages, and tools.

NUR 560 - Clinical Pathways I

In this course, care needs requiring preventive, nursing, rehabilitative, and palliative skills in specialized adult and pediatric areas are analyzed and identified. Methodologies for studying patients' health problems with specific clinical conditions are described, and evidence-based care interventions in specialized settings are identified. In addition, knowledge of management, organization, and research to analyze and solve the needs of patients with specific problems in gynecologic-obstetric, surgical, and pediatric settings.

Credit: 6 CH

In this course, an analysis of organizational, research, and health education experiences in the following settings is performed:

- NUR 560A - GENERAL AND SPECIALTY PEDIATRICS AND CONTRIBUTIONS OF EVIDENCE-BASED PEDIATRIC NURSING CARE (emphasizing the drug therapy process in neonatology and pediatrics and early



recognition of clinical worsening and its management).

- NUR 560B - GYNECOLOGY AND OBSTETRICS AND CONTRIBUTIONS OF EVIDENCE-BASED CARE.
- NUR 560C - GENERAL SURGERY AND CONTRIBUTIONS OF EVIDENCE-BASED CARE.

NUR 570 - Clinical Pathways II

This course identifies care needs that require preventive, nursing, rehabilitative, and palliative skills in specialized areas in adulthood; uses methodologies to analyze health problems of patients in specific clinical conditions; identifies evidence-based care interventions in specialized settings; applied knowledge of management, organization, and research to analyze and solve needs of patients with particular problems in the areas of medicine, geriatrics, resuscitation and intensive care, neurology, oncology, palliative care. Elements of taking care of weak and marginal populations (patients with dementia, poly-pathology, and palliative care) are also identified. In addition, from clinical contributions, areas of studies are analyzed on which to build traces of research paths oriented to investigate aspects of the profession and evaluate the effectiveness of care interventions and types of research studies aimed at investigating clinical, professional, educational, and organizational elements and validating instruments capable of measuring care-related phenomena.

Credits: 6 CH

The course is divided into modules:

- 570A - CONTRIBUTIONS TO GERIATRIC
The topics discussed were the geriatric patient and its peculiarities, dementias, malnutrition, osteoporosis, and organizational models in geriatrics.
- 570B - CONTRIBUTIONS OF ANESTHESIOLOGY
The topics discussed included the care of critically ill patients, relationships with patients and their relatives, primary care issues, and informed consent.
- 570C - CONTRIBUTIONS TO MEDICAL ONCOLOGY
The topics discussed included epidemiology, prevention, and care related to oncology patients. Peculiarities and organizational, management, and communication models underlying research and care in oncology.
- 570D - INTERNAL MEDICINE APPROPRIATIONS
The topics discussed included chronic diseases, their prevention and management, educational pathways for patients with chronic diseases, and organizational models in internal medicine.
- 570E - PALLIATIVE CARE CONTRIBUTIONS
The topics discussed were organizational and care aspects, educational, cultural, and ethical aspects, research methodology, and the extension from oncology to other chronic-degenerative diseases with inauspicious outcomes.
- 570F - NEUROLOGY CONTRIBUTIONS
The topics discussed included neurodegenerative diseases, such as etiology, clinical aspects, and principles of care for Alzheimer's, Parkinson's, and motor neuron diseases. Additionally, cerebrovascular diseases were covered, including etiology, clinical aspects, and principles of care for ischemic and hemorrhagic stroke, as well as acute and chronic subarachnoid hemorrhage.
- 570G - EFFECTIVENESS TEST-BASED INFIRMARY CARE
The topics discussed were constructing a research protocol, defining research outcomes, and validating data collection instruments.

NUR 580 - Didactic Training I

Didactic Training I aim to foster the acquisition of planning and operational skills in implementing and evaluating training events, managing teaching methodologies and tools, and developing interpersonal skills in mentoring and coordinating internship activities for introductory, integrative, and continuing education.

Credits: 4 CH

The course is designed in the following modules:

- 580A - TUTORIAL TEACHING I
Topics discussed: This module analyzes clients' context and needs, collects and analyzes learning needs in health education, and prepares a microproject in all its phases (objectives, goals, content, target, monitoring, and evaluation), including self-evaluation, peer evaluation, and evaluation by others.
- 580B - EDUCATIONAL METHODS APPLIED TO NURSING I
Topics discussed: This module analyzes the tutorial-learning relationship and the tutor's role, ward-based learning and the tutors, and experience-based learning models.
- 580C - EDUCATIONAL METHODS APPLIED TO MIDWIFERY I
Topics discussed: Instructional tools and information technology will be analyzed, as will learning styles, tutoring, and feedback.
- 580D - GENERAL AND SOCIAL PEDAGOGY
Topics discussed: This section will present the main pedagogical theories and specific elements for adult learners.
- 580E - DEVELOPMENT PSYCHOLOGY AND EDUCATION PSYCHOLOGY



Topics discussed: Analysis of a learning relationship, emotional components of learning, and specific elements for adult learners. Consider cognitive, social, and emotional observations, particularly as they relate to education, training, mentoring, and understanding operational contexts.

- **580F - INSIGHTS OF CLINICAL PSYCHOLOGY**

Topics discussed Include Communication management in learning, group dynamics, and problems in interpersonal communication.

NUR 590 - Didactic Training II

Didactic Training II aims to equip participants with the skills to define, implement, and evaluate training projects in basic and post-basic education, as well as in the university and continuing education systems. The course will develop the ability to specify a quality training system, taking into account the main educational processes and the ability to coordinate classroom teaching activities, tutoring, and internship activities for primary, supplementary, and continuing education.

Prerequisite: NUR 580 Didactic Training I

Credits: 4 CH

The course is designed in the following modules:

- **590A - CONTINUING EDUCATION AND TRAINING IN HEALTH PROFESSIONS**

The module develops the ability to define a quality training system, considering the main educational processes. It also enables the coordination of classroom teaching, tutorials, and internship activities for essential, complementary, and continuing education.

- **590B - DIDACTICS AND SPECIAL PEDAGOGY**

The module aims to promote skills in the analysis, design, implementation, and coordination of training interventions in corporate and university settings within clinical healthcare systems, including the adoption of new practices in teaching practice management.

- **590C - HEALTHCARE EDUCATION AND PEDAGOGY**

This module analyzes training demand about health needs, training principles, and training requirements associated with a specific health problem.

- **590D - DESIGN, MANAGEMENT, AND EVALUATION OF TRAINING SYSTEMS**

This module discusses planning basic and post-basic training systems in university settings. It starts with organizational and care problems or pre-defined general competencies and considers the training context.

NUR 650 - Research I - Implementation

In this course, students will learn to identify and utilize quantitative and qualitative research methods and tools, and integrate the resulting information. They will also critically evaluate knowledge gained in the biomedical and human sciences, apply scientific evidence, and transfer research findings into practice.

The course is designed in the following modules:

- **NUR 650A - CLINICAL MICROBIOLOGY CONTRIBUTIONS**

Topics discussed: Insights from microbiology in the healthcare setting primarily refer to nursing, pediatric nursing, and midwifery. The Concept of Health Care. The Role of the microbiology laboratory in nursing. The appropriate use of antibiotics. The Control of antibiotic resistance: surveillance of Gram-positive and Gram-negative bacteria. Viral infections: disease, significant viruses, and therapy.

- **NUR 650B - PUBLIC HEALTH CONTRIBUTIONS**

This module covers public health activities in disease surveillance and control, including information sources, epidemiological study designs, criteria, and indicators. It will analyze preventive interventions (vaccination strategies, cancer screenings) and care-related infections.

- **NUR 650C - DRUG RESEARCH**

This module will cover knowledge related to the research and development strategies for currently marketed drugs and new biotech and non-biotech drugs. It will also review the role of the nurse in clinical drug development.

- **NUR 650D - QUANTITATIVE RESEARCH**

Topics discussed: Qualitative research methods and tools are analyzed. The integration of qualitative research information with quantitative research is discussed. Research methodology, including insights into data validation, questionnaires, rating scales, criteria, indicators, and administrative data, is also discussed.

- **NUR 650E - DATA PROCESSING**

The module aims to provide the fundamental knowledge necessary to understand and manage data using a relational system. By the end of the module, students will be able to understand the relational structure of a database and independently model a logical structure to meet information needs.

- **NUR 650F - MEDICAL STATISTICS AND RESEARCH METHODOLOGY**

This module explores statistical and research methodological approaches for collecting data on various health issues and fields.

NUR 655 - Research II - Developing the Research



The course aims to provide knowledge on measures of epidemiology, clinical epidemiology, and statistical methodologies that can be used in research; on ethical/moral - bioethical and deontological principles that condition the conduct of study; and to make the student capable, but not limited to, using scientific evidence by applying it to decision-making; drafting a research protocol and carrying out a research project in the relevant professional field; to promote research as a tool for professional training and updating.

Prerequisite: NUR 650 Research I – Implementation

NUR 690 - Master's Thesis

Under the guidance of a faculty member, students will present a master's thesis on a research project they have undertaken.

Prerequisite: permission of the instructor

Credits: 3 CH

14.3.4.2 Public Health Sciences

NPH 560 - Public Health Nursing I

Public Health Nursing is a course that aims to:

- Examine the impact of sociocultural, demographic, geographic, and economic variables on population health.
- Use an epidemiological and ecological perspective for aggregate health assessment, planning, and program implementation.
- Use information technology to evaluate public health data and the best available evidence to identify population health risks, health promotion, and risk reduction interventions.
- Describe the structure of the public health system, laws, and significant funding strategies that support the delivery of health services.
- Communicate effectively and participate as a team member with community stakeholders to identify areas of health promotion, community action, and advocacy.

The Public Health Nursing I course covers the following topics: History and Foundation of Community and Public Health Nursing, Core Public Health Functions, and Ethical Principles.

The course aims to provide students with a foundation in the social-ecological factors that lead to health-limiting or health-promoting behaviors, enabling them to address the complexities of health issues better and explore the philosophical foundations, conceptual frameworks, and strategies for practical behavioral and social change efforts in public health. It also provides knowledge about the health policy process and its relationship to planning, monitoring, and evaluation.

It will explain how to apply these concepts in developing and middle-income countries, as well as how to utilize an appropriate planning framework for health sector activities.

NPH 570 - Public Health Nursing II - Surveillance, Prevention, and Control of Infectious Risk

This core Master of Public Health course is designed to help participants acquire skills that will enable them to achieve knowledge and understanding of measuring health and disease. Students will learn different types of epidemiological study designs. In addition, students will acquire the necessary skills to plan, conduct, and evaluate epidemiological studies, as well as critically appraise and interpret data from scientific papers and epidemiological reports. This module covers general and applied hygiene, epidemiology, analysis methodology, infectious diseases, and clinical nursing. It will also explore the levels of prevention, cross-cultural nursing, community assessment, Healthy People 2030, and strategies for promoting public health.

NPH 590 - Nutrition and Public Health

The course will introduce the concepts of diet and nutrition, as well as various types of nutrients. It will also discuss the role of diet and nutrition in multiple stages of development, public health, and disease prevention. Other topics include nutritional status assessment, weight management, and energy diet. Global and local aspects of nutrition and health will also be assessed.

NPH 610 - Health Emergency and Preparedness

The course will provide a good understanding of the impact of an emergency and how to plan effectively to reduce and minimize adverse health outcomes. Case studies from local and international experiences will be presented, and different approaches used to alleviate the consequences of such disasters and emergencies will be critically appraised.

NPH 620 - Global Public Health

This course describes the health profile, burden of communicable and non-communicable diseases, emerging epidemics, demographic profile, and health needs in various regions. It also enhances understanding of the determinants of health in various global contexts, as well as the environmental, cultural, and economic factors that influence health, disease, and disease control policies and strategies.

NPH 650 - Health Research Methods

This course will allow students to establish and advance their understanding of research methods in public health. The course introduces students to the research process, research ethics, and the art of proposal writing. Students



will be guided in understanding the language of research, including ethical principles, the challenges associated with research, and various research methods, such as qualitative, quantitative, and mixed-methods approaches. Additionally, during this course, students will apply the theoretical knowledge they have gained to review the literature relevant to public health critically. After completing the course, students can prepare a research proposal, collect data, address research questions and hypotheses, and assemble a research project paper.

NPH 655 - Research - Developing the Research

The research project serves as students' formal culminating experience, providing them with the knowledge and skills to design, conduct, and present a scholarly public health project. It is an opportunity for students to work on public health projects that are particularly interesting to them. The goal is for students to synthesize, integrate, and apply the skills and competencies acquired during the program. The project's primary purpose is to enable students to conduct original research or a project independently on a topic in one of the PH fields.

By the end of the research project, successful students will be able to:

- To identify a research topic and develop a research project proposal document
- To conduct a critical appraisal and research synthesis.
- To formulate research objectives and research questions.
- To develop a research proposal that includes study design, data collection methods, tools, and a data management analysis plan.
- To collect, process, and analyze data using appropriate statistical analysis software.
- To write a research project report and submit it on time.
- To apply ethical research principles throughout the research project, including design, data collection, and dissemination of findings.

Students will utilize the information acquired from previous public health courses to design, carry out, and present their research projects. The resulting work must be original and contribute new knowledge to the field of public health.

The research advisor will guide the students through a stepwise process culminating in project completion.

Furthermore, to enhance their professional, research, and analytical capabilities, students must attend seminars and workshops and participate in community service. This culminating experience, which contributes to the completion of their project, enables students to demonstrate their public health competencies.

NPH 690 - Master's Thesis

Under the guidance of a faculty member, students will present a master's thesis on a research project they have undertaken.

Prerequisite: permission of the instructor

Credits: 3 CH

14.3.4.3 Nutrition Sciences

NUT 110 - Biomedical Sciences I

The course aims to impart knowledge of the macroscopic and microscopic organization of the human body, using related terminology appropriately, and the general morpho-functional organization of the various systems. It will also describe the individual organs of the various apparatuses and systems. Confer basic knowledge of the principles of physics and physiology necessary for understanding the functioning of the central systems constituting the human body and for using biomedical instrumentation, emphasizing applications of interest to the degree program.

The following modules formulate this course:

- NUT 110A - HUMAN ANATOMY
This module provides students with knowledge of the human body's organization, using appropriate terminology, and an understanding of the various organs and systems, with a particular focus on the relationship between form and function.
- NUT 110B - PHYSIOLOGY
Topics discussed: Physiology studies the functions of a living organism and its parts, including physical and chemical processes. This module aims to help students understand the main physiological mechanisms.
- NUT 110C - PHYSICS I
This module confers the basic knowledge of physics principles necessary to understand the principles underlying biological mechanisms.

NUT 190 - Ethical, Legal, and Ethical Principles and Organization of the Profession

The course aims to equip students with the tools and knowledge necessary for understanding the evolution of health systems, enabling them to respond to changes competently and responsibly. To provide the essential elements of business economics to enrich their awareness about the organization and management of the health care business. To provide the basics of health law that are useful for future professional activity. To inform students about major bio-ethical issues, particularly to develop the problems medico-legal of feeding as therapy and



nontherapeutic aid, and the feeding of people with anorexia. Follow national and international codes of conduct and ethics. Apply ethical principles in information management. Conduct professional practice by national and international policies, regulations, and codes of ethics for Dietitians. We are applying research findings to practice, utilizing critical thinking to ensure the quality of dietary interventions. Provide the student with elementary notions of radio diagnostics and radiation protection, including hints on radiobiology, radiotherapy, and nuclear medicine. To explain the various imaging methods used for diagnostic and therapeutic purposes so that they can be applied correctly.

Credits: 2 CH

This course consists of the following modules:

- NUT 190A - HEALTHCARE MANAGEMENT

This module analyzes the following topics: accreditation, both national and international; essential levels of care; the company and the Corporate Act; departments and districts; and quality systems, including the evolution and application of audit systems to healthcare processes.

- NUT 190B - LEGAL MEDICINE

The following topics are analyzed in this module: The practice of the health profession, the responsibilities of health professionals, the lawfulness of the Health Care Act and informed consent, medical records and the legal profile of the health care professional, professional secrecy, transmission, and disclosure, the state of necessity, failure to assist, deontological standards, sources of law and their hierarchy, personal injury, and the duty to report and reporting.

- NUT 190C - ETHICS AND PROFESSIONAL DEONTOLOGY

The following topics are covered in this module: The evolution of the health professions and the dietetics profession worldwide. Professional Profile: meaning, content, and impact on the profession. Dietitian Code of Ethics: contents and repercussions in professional practice. I was referring to the meaning and application of the concepts of ethics, autonomy, and responsibility. Evidence-based medicine in professional practice. Continuing medical education: the credit system, corporate training programs, distance learning, post-basic training. International Dietetics and Nutrition Terminology: a shared language for professional practice. The professional and scientific associations in the field of nutrition.

- NUT 190D - RADIATION PROTECTION

The following topics are covered in this module: X-ray generation and the most important medical imaging modalities, such as Ultrasound, Computed Tomography, and Magnetic Resonance; General information and history of Radiation Protection; Ionizing and non-ionizing radiation, natural and artificial sources of radiation, radiation exposure (internal, external, contamination), signposting in radiation protection. Main biological effects of non-ionizing radiation; Radioactivity: definition, measurement units, radioactive decay, radioactivity of natural and artificial origin, atomic bombs and nuclear accidents; Radiation and biological matter interaction, biological damages induced by ionizing radiation (to DNA and cells), tissue and cellular radiosensitivity. Dosimeters quantities and measurement units in radiation protection, deterministic and stochastic effects, population exposure to ionizing radiation, and the annual dose limits prescribed by law. Protective equipment (environmental and individual) on radiation protection, instruments for measuring absorbed dose, dosimetry, and dosimeters, and general recommendations for occupational and patient Radiation protection.

NUT 200 - Food Hygiene and Safety

This course aims to provide students with a solid foundation in basic microbiology, food hygiene, and sanitation, enabling them to understand the influence of microorganisms on food from a health, medical, and socio-economic perspective. It also aims to provide the essential tools necessary for the legal interpretation of American and EU regulations governing the food sector (food legislation) and to offer the primary cognitive and methodological tools for applying the principles of business self-control.

This course consists of the following modules:

- NUT 200A - MICROBIOLOGY

The following topics are explored in this module: The importance and role of microorganisms. Microscopic observation and staining techniques. Structures of the bacterial cell. Bacterial spore. Microbial virulence factors. Bacterial nutrition, bacterial growth, and culture medium. Study of the development, survival, and death of microorganisms. Microbial metabolism. Saprophytic bacteria in the human body. Pathogenic bacteria: exogenous and endogenous infections. Host defenses.

BACTERIOLOGY. Microbiological and pathological aspects of Staphylococcus, Streptococcus, Bacillus, Lactobacillus, Listeria, Clostridium, Brucella, Enterobacteriaceae, Vibrionaceae, Campylobacter, Helicobacter, Pseudomonadaceae, Mycobacterium, Legionella. Microorganisms are responsible for various infections and foodborne illnesses, including food poisoning, as well as the beneficial effects of probiotic bacteria.

MYCOLOGY. General properties of fungi: classification, growth, diagnosis. Candida, Aspergillus, Pneumocystis Jirovecii, Mycotoxins.

PROTOZOOLOGY. General properties of protozoa. Intestinal amoebae, Giardia, and Toxoplasma cause clinical and microbiological aspects of infection.



VIROLOGY. General properties of viruses: replication, culture, and pathogenesis. Viral gastroenteritis: Picornavirus (Enterovirus: poliovirus and hepatitis A), Adenovirus, Astrovirus, Calicivirus (Norovirus and hepatitis E virus), Rotavirus. Hepatitis B, C, and D viruses. Herpesvirus, Adenovirus, Papovavirus, Orthomyxovirus, Paramyxovirus, and HIV.

- **NUT 200B - FOOD HYGIENE**

This module explores the following topics: general principles of demography and health statistics for epidemiological studies; general principles of epidemiology of infectious diseases and their prevention; the spread of foodborne diseases (FD), including a review of the most prevalent FD in industrialized countries; and possible primary prevention actions. Factors controlling the development of microorganisms on food and their modification to determine their reduction and elimination include temperature (refrigeration and freezing, pasteurization and sterilization), water activity (Aw, lyophilization), the conservation environment atmosphere, and additives. Food contamination: micro-organisms indicators of quality and safety. Microbiological analysis of food (outline): reading and understanding. Drinking water and health.

- **NUT 200C - FOOD LEGISLATION**

This module explores the following topics: company self-control and the HACCP system; the official control of food; the labeling of food products; food additives; microbiological criteria applicable to food products; food offenses; Basic regulations on meat, fish, eggs, milk, dairy products, and water; and recognition of fish species of health concern in preventing toxic and commercial fraud.

NUT 210 - Biomedical Science II

The course aims to provide students with a solid foundation in biology, medical genetics, and chemistry, as well as preparation for acquiring advanced knowledge in biochemistry and understanding a diverse range of biological phenomena of interest. In particular, the course provides an understanding of the major metabolic pathways and the biological, genetic, and cellular biochemical mechanisms. The topics covered in the course enable students to gain insights into the structure and function of prokaryotic and eukaryotic cells, thanks to the integration of the most current notions of molecular and cellular biology, and to develop an understanding of the basics of formal human genetics. The course aims to impart basic concepts about the structure and organization of the cell in the context of various tissues. It seeks to elaborate on notions of fundamental importance for understanding the cell's functions within its social context and maintaining bodily homeostasis, providing insights into the pathological consequences of malfunctioning or dysregulation of these functions.

This course consists of the following modules:

- **NUT 210A - BIOLOGY**

This module explores the following topics:

The structure of eukaryotic cells: the plasma membrane, phospholipids, and membrane proteins; the endoplasmic reticulum; lysosomes; mitochondria; the nucleus; and the cytoskeleton. Transport of molecules and information: cellular membranes regulate the passage of substances and signal transduction from environmental cues.

Molecular Genetics: DNA structure and mechanisms of its duplication; Gene expression; transcription and RNA Structure and function of ribosomal, transfer, and messenger RNAs; the genetic code; translation. General Genetics: chromosomal structure; mitosis and meiosis; chromosome distribution; first and second Mendel's Law; dominant and recessive traits. Sexual heredity mutations and their biological consequences.

- **NUT 210B - MEDICAL GENETICS**

This module explores the following topics:

Cytogenetics: Abnormalities of chromosome number and structure: any change that disturbs the average balance of functional genes can result in abnormal development. Patterns of single-gene inheritance; autosomal and recessive inheritance; variability in the phenotypic manifestations of mutant genes: penetrance and expressivity; locus heterogeneity; nutrigenetics; pedigree analysis: familial hypercholesterolemia, cystic fibrosis; the inborn error of metabolism: phenylketonuria, galactosemia, cystinuria; X-linked inheritance, Lyon hypothesis. Genetic variation in populations: phenotypes, genotypes, and gene frequency; the Hardy-Weinberg law. Factors that disturb the Hardy-Weinberg equilibrium are consanguinity, genetic drift, mutation, and selection. Genetics of disorders with complex inheritance. Multifactorial inheritance: the liability/threshold model. Diabetes type 1, celiac disease, obesity, and cancer. The prediction of recurrence risk.

- **NUT 210C - CHEMISTRY AND BIOCHEMISTRY PROPAEDAEUTICS**

This module explores the following topics:

a. **INORGANIC CHEMISTRY**

Definition: atom and molecule. Structure of the atom: proton, neutron, electron. Electronic levels. Periodic Table. Ionic and covalent bonds. Orbitals. Van der Waals forces. Redox reactions. Chemical formula. Nomenclature of ionic and covalent compounds; primary polyatomic ions. Carbon, nitrogen, and sulfur oxides. Molecular weight and molarity. Stoichiometric calculations. Solutions. Colligative properties of solutions. Preparation of a saline solution. Osmolarity. Chemical kinetics. Chemical equilibrium: law of mass action, equilibrium constant. Chemical reaction modality. Catalysis: mechanism of action and role of



catalysts. Definition of Acid and Base. pH and pOH. pH calculation. Acid-Base titration. Buffer systems of biological interest.

b. ORGANIC CHEMISTRY

Saturated, unsaturated, and aromatic hydrocarbons. Alcohols, aldehydes, ketones, carboxylic acids, amines, thiols. Ether, ester, anhydride, amide, and disulfide bonds.

c. STRUCTURAL BIOCHEMISTRY

Carbohydrates: monosaccharides, disaccharides, oligosaccharides, polysaccharides. Starch, glycogen, cellulose, and mucopolysaccharides. Lipids: fatty acids, phospholipids, sphingomyelin, glycolipids. Steroids: sterols and bile acids. Proteins: amino acids and peptides. Structure of a protein. Myoglobin. Hemoglobin.

NUT 220 - Basics of Clinical Nutrition

This course aims to impart the knowledge and develop the skills that characterize the professional profile of the dietitian, in line with the specific educational objectives of the Dietetics degree program:

Identify the biological, psychological, and social needs of the individual and community related to nutrition from a biopsychosocial perspective. Highlight the application implications of the acquired knowledge in designing an individualized treatment plan. Plan and manage dietary-nutritional interventions in the field of eating disorders (ED).

Develop communication and interpersonal skills, manage relationships, and interface with other professionals in a multidisciplinary context. Develop soft skills (empathy, acceptance, unity) to establish and maintain effective relationships with the person, family, social context, and other professionals.

The following modules formulate this course:

- NUT 220A - CLINICAL NUTRITION I

The following topics are explored in this module:

- Background of Clinical Nutrition;
- Influence of Illness on nutritional Intake and requirements;
- Energy metabolism in a fast state and critical illness;
- Determination of energy requirements and adjusted body weight;
- Protein and amino acid metabolism in normal states and critical illness;
- Metabolic response to injury and sepsis;
- Water, minerals, and vitamins in health and disease;
- Malnutrition: epidemiology, classification, functional and clinical consequences;
- Malnutrition risk screening;
- Nutritional Assessment;
- Nutritional care in malnutrition, refeeding syndrome;
- Goals and methods in Clinical Nutrition.

- NUT 220B - PHYSICS II

The following topics are explored in this module:

- Thermodynamics of biological systems
- Thermometry (heat, specific heat, heat transmission mechanisms, first law of thermodynamics, and applications to ideal gases);
- Thermal balance, calorimeters, determination of the caloric power;
- Metabolic processes, physiological energy, and energy exchanges in the human body;
- Metabolic rate, basal metabolic rate, and determination of the metabolic rate through calorimetric and spirometry techniques;
- Energy efficiency of the human body and thermoregulation.
- Impedance analysis of the human body:
- Electricity (electric charge, electric field, electric capacity, potential energy, and electric potential difference);
- Direct and alternating currents (intensity of current, Ohm's laws and electrical resistance, resistances in series and parallel, frequency and period, electrical impedance);
- Electrical models of the human body, bioelectrical impedance measurements in tissues, and methods for measuring body impedance and assessing body composition.

- NUT 220C - CLINICAL PSYCHOLOGY

The following topics are explored in this module:

- Brief Introduction to Clinical Psychology: historical notes and topics.
- Taking care of complexity: the bio-psycho-social perspective and the multidisciplinary care management.
- Motivation and changing: a focus on eating behaviors.
- Beyond the psychopathological diagnosis: understanding the individual functioning and its implications on care.
- The aid relationship: effective listening and communication.
- Eating Disorders: A Relational Perspective.
- Social stigma.



- **NUT 220D - TECHNICAL DIETARY SCIENCE 2 - (APPLIED TO PSYCHOLOGY)**

The following topics are explored in this module:

- Groups: Human beings are part of groups, working in multi-professional teams. Dietitians typically work in teams; how can they enhance their professional skills?
- Ethology: the study of animals' eating methods to understand human beings' eating behavior.
- Outlines of Human Communication: Dietitians' Competencies.
- The NCP method: "Nutritional Care Process and Model," an introduction to a shared language for dietetic practice.
- Motivation and change, psychological aspects and dietetic competence: hints on Maslow's theory of needs, Piccardo's Empowerment model, the value of group support, self-help as a resource, and motivational interviewing with the chronic patient (Prochaska's Wheel of Change, Di Clemente) in dietetic practice.
- Outlines of food history and anthropology: food and traditions in classical culture (e.g., Jewish and Muslim); taboos and uses of food in traditions.

- **NUT 220E - TECHNICAL DIETARY SCIENCES 3 - (APPLIED TO CLINICAL NUTRITION)**

The following topics are explored in this module:

Definition of diet, Diet Therapy, and role of the dietician; Introduction to the "Hospital Diet": meaning of the main dietary restrictions (calories, proteins, sodium, etc). Notes on the main changes in the consistency of foods. The medical record: compilation methods, parameters for evaluating nutritional status (detectable anthropometric data, data to be calculated), and formulas for calculating the percentage of weight loss and nutritional risk for ambulatory and bedridden patients. Screenings for the evaluation of nutritional status, their meaning, and use. Method of carrying out dietary counseling and drawing up a nutritional assistance plan. Introduction to scientific research: researching, examining, interpreting, and transcribing investigations.

NUT 230 - Physiology and Biochemistry of Nutrition

The course aims to provide knowledge of the biochemical basis of central metabolic pathways in the healthy individual and the physiological principles underlying the functioning of the human body's apparatuses, with particular reference to those involved in nutrition. This goal is to provide the necessary tools to construct balanced dietary regimens under physiological conditions and to understand the mechanisms underlying the metabolic alterations that arise in common diseases, such as diabetes, hyperlipidemia, and obesity.

This course consists of the following modules:

- **NUT 230A - BIOCHEMISTRY OF NUTRITION**

The following topics are explored in this module:

- Metabolic Biochemistry Introduction.
- Autotrophic and heterotrophic organisms. Catabolism and anabolism.
- Catabolism, digestion, and absorption of carbohydrates. Glycolysis. Lactic acid and alcoholic fermentation. Glycogen breakdown. Control of glycolysis and glycogen breakdown. The pentose phosphate pathway. Pyruvate dehydrogenase.
- The citric acid cycle, mitochondrial respiration, and oxidative phosphorylation. The citric acid cycle (Krebs cycle) and its modulation. The mitochondrial respiratory chain. Oxidative phosphorylation. The detoxification system of partially reduced oxygen.
- Catabolism of lipids. Digestion and absorption of lipids. Lipolysis. Catabolism of fatty acids: β -oxidation and its control. Synthesis and use of ketone bodies.
- Catabolism of amino acids. Amino acid degradation, the urea cycle and its modulation, the catabolism of the carbon skeleton of amino acids, and the roles of biotin, tetrahydrofolate, methyl-cobalamin, and S-adenosyl methionine.
- Anabolism of carbohydrates. Gluconeogenesis and the synthesis of glycogen and their control.
- Anabolism of lipids. Synthesis of fatty acids, triacylglycerols, phospholipids, sphingolipids, cholesterol, cholesterol esters, bile salts, and relative regulation.
- Anabolism of amino acids. Nitrogen cycle. Essential and nonessential amino acids.
- Catabolism of nucleic acids.
- Integrated metabolisms. Fast/feed cycle. Biochemical changes in glucose intolerance and diabetes.
- Metabolism of calcium, phosphate, and iron.

- **NUT 230B - PHYSIOLOGY OF NUTRITION AND HUMAN NUTRITION**

The following topics are explored in this module:

1. **PHYSIOLOGY OF NUTRITION:** Physiology of digestion and absorption of nutrients; Energy balance and methods for measurement; Physiology of hunger and satiety/physiology of thirst.
2. **BALANCED NUTRITION IN HEALTHY PEOPLE:** Calculate energy requirements, macronutrient needs, and micronutrient needs. Recommend nibbling meals.
3. **FOOD GROUPS: NUTRIENTS AND NUTRITIONAL RULES OF EACH GROUP:**
1st GROUP: meat, fish, eggs, legumes, and soy products. These are the nutritional value, quantity, and recommended choices for feeding healthy subjects.



- 2nd GROUP: milk and dairy products. Milk, yogurt, cheese, and other dairy products: nutritional value, quantity, and recommended choices for feeding healthy subjects.
- 3rd GROUP: fruit and vegetables. Nutritional value, quantity, and recommended choices in feeding healthy subjects.
- 4th GROUP: cereals and tubers. Nutritional value, quantity, and recommended choices in feeding healthy subjects.
- 5th GROUP: fats and oils for seasoning. Nutritional value, quantity, and recommended choices in feeding healthy subjects.
4. BEVERAGES: NUTRIENTS AND NUTRITIONAL VALUE: Mineral water, tap water, fruit juices, soft drinks, wine, and spirits: nutritional value and recommended choices for feeding healthy subjects.

NUT 240 - Food Chemistry and Commodity Chemistry

The course aims to provide students with in-depth knowledge of commodity and food chemistry, with particular reference to chemical composition, changes induced by technological processing and sanitization treatments, production technology, and regulations for commercial dissemination so that, in the context of the profession, they can evaluate and identify the foods best suited to users' needs. Based on this knowledge, tools and methods for constructing dietary patterns by the American population's Reference Intake Levels of Nutrients and Energy are also provided.

Credits: 4 CH

The following modules formulate this course:

- NUT 240A - Food Chemistry

The following topics are explored in this module:

- Introduction to Food Chemistry and related disciplines.
- Water: water activity, chemical and enzymatic food reactions, water for human consumption, chemical and biological quality.
- Edible fats and oils: data on production and consumption, origin of individual fats and oils, animal fats, and oils of plant origin. General characteristics, biosynthetic peculiarities (odd number of carbons, cis/trans configuration). Processing: extraction, refining, bleaching, deodorization, deacidification, fractionation, interesterification, and hydrogenation. Olive oil legislation: denomination of extra virgin olive oil, peculiarities, marker of authenticity and quality.
- Milk and dairy products: milk, physical and physicochemical properties, general composition, casein fractions, micelle formation, whey proteins, carbohydrates, lipids, and other constituents. Enzymes. Milk processing: thermal treatments, creaming, heat treatments, and markers of treatments (enzyme residual activity, Maillard reactions, lactulose formation). Dairy products: fermented milk, yogurt, sour milk, probiotic, and prebiotic products. Cheese: curd formation, ripening, and whey products (ricotta), as well as chemical changes in the lipid and protein fraction. The aroma and taste of dairy products.
- Cereals and cereal products: wheat and rye origin, general composition, proteins (gluten composition and chemical characteristics), carbohydrates (starch and gelatinization), lipids, and other constituents. Milling products (wheat flour characteristics and legislation), baking products (bread and pasta).
- Wine: grape cultivars, growth and harvest, must production, and chemical composition. Fermentation, cellar operations after fermentation, racking, storing, and aging. Sulfur treatment, clarification, and stabilization. Aroma and phenolic substances, pigments, and chemical modification during storage and aging. Sparkling wines: production. American and EU legislation.
- Vegetables and Fruits: chemical composition, macro, and micronutrients. Dietary Fiber: definitions, relevant substances, and biological activity. Antioxidants: definitions, classification based on action principles, relevant bio-active secondary metabolites—examples. Toxic substances and anti-nutrients: examples.
- Food packaging: pre-requisites for materials adopted in food packaging, migration test conditions, and simulants.

- NUT 240B - COMMODITY SCIENCE

The following topics are explored in this module:

- The food category system encompasses the field of study, teaching methods, course organization, food products and raw materials, water use, supply, classification systems, properties, and treatment of water and nutrition.
- Foods contain one nutritional element: the production and classification system of oils and fats, sugar (raw materials, production, by-products, and synthetic sweeteners).
- Foods containing more than one nutritional element: classification system and characteristics of cereals.
- Classification system and preservation of meat.
- Classification system and preservation of fish.
- Fruit and Vegetables.
- Foods containing all nutritional elements: classification system, preservation, and manufacturing of milk and milk derivatives.



- **NUT 240C - TECHNICAL DIETARY SCIENCES 1**

This module explores the following topics: foods and their nutritional value, recommended nutrient and energy levels for the population, adult water intake, protein, lipids, carbohydrates, fiber, cholesterol, sodium, potassium, calcium, iron, and phosphorus. Definition of portion size: portion sizes according to the LARN. Food composition tables: presentation and how to use them. According to LARN and the LGs, adult nutrition is for healthy eating. General principles for setting dietary patterns. Food labels.

NUT 250 - Laboratory I

The course aims to provide students with the basic knowledge and tools for estimating the weight and volume of commonly used foods so that they can become aware of the concept of portions and how they are expressed (weighing or practical measurements) and begin the conscious work of quantifying the eating habits of healthy adult subjects or defining appropriate portions as part of setting dietary patterns.

Prerequisites: permission of the instructor

Credit: 1 CH

NUT 270 - Nutrition Assessment

The Nutrition Assessment Course is designed to introduce students to the anthropometric, biochemical, and dietary nutrition assessment techniques of individuals and populations. The overall goal is to develop a foundation for Clinical dietetics, which completes the coverage of disease states encountered by dietitians. Students will learn how to integrate these measurements into a suitable nutritional protocol design for patients. They will also learn effective patient management and follow-up.

NUT 280 - Medicine, Surgery, and Pharmacology

The purpose of this course is to provide students with the knowledge and tools to recognize the signs and symptoms of the primary diseases with nutritional impact (digestive system, cardiovascular system, hematopoietic system, nervous system, immune system); the main surgical techniques, particularly of gastroenterological, bariatric and metabolic interest and the main anatomy-physio-pathological consequences; the properties of the main classes of drugs of specific interest and dietary supplements and influence of drugs on nutritional status and nutrient availability.

This course consists of the following modules:

- **NUT 280A - SURGERY**

Topics discussed: Traditional, endoscopic, and minimally invasive surgical techniques. Functional and neoplastic pharyngoesophageal diseases. Gastric neoplasms and surgical approach. Biliary and cholecystic calculus. Hepatic and pancreatic neoplasms. Inflammatory bowel diseases, Crohn's disease, and Ulcerative colitis. Stomas: Management and Colorectal and anal diseases and neoplasms. Organ Transplants. Bariatric and metabolic surgery.

- **NUT 280B - PHARMACOLOGY**

Topics: Introduction to drugs and pharmacokinetics (absorption, distribution, metabolism, and elimination). Pharmacodynamics (drug targets, dose-response relationship, therapeutic index). Adverse drug reactions and drug development. Variability in drug response is related to the drug, the patient, and the drug-food interactions. Drugs acting on the gastrointestinal system. Drugs acting on the cardiovascular system. Drugs acting on inflammation. Antidiabetic drugs. Drugs affecting body weight and drugs acting on obesity. Drugs used in disorders of nutrition. The principle of anticancer drug therapy. Modulators of gut microbiota and dietary supplements.

- **NUT 280C - INTERNAL MEDICINE**

Topics discussed:

- **CARDIOVASCULAR DISEASE:** definition, signs, and symptoms of cardiovascular disease (edema, ascites, ischemia, shock, hypertension, hypotension, thrombosis, embolus, myocardial infarction), Ischemic heart disease, Heart failure, Arterial hypertension. Respiratory Diseases - Respiratory failure.
- **DIGESTIVE SYSTEM DISEASES:** Definition of signs and symptoms of digestive system pathology: Dyspepsia, Nausea, Vomiting, Constipation, Diarrhea, Dysphagia, Hematemesis, Melena, Jaundice, Ascites. Instrumental and functional semeiotics of the digestive system: Esophagogastroduodenoscopy, ERCP, esophageal manometry, esophageal pH-meter, radiological and ultrasound diagnostics of the digestive system (abdomen CT, abdomen MRI, endoscopy), paracentesis. Diseases of the oral cavity. Gastroesophageal reflux disease. Acute and chronic gastritis, Peptic ulcer. Celiac disease. Diverticular disease of the colon. Chronic inflammatory bowel diseases (Crohn's disease, ulcerative colitis). Acute and chronic pancreatitis. Cirrhosis of the liver and its complications. Calculus of the biliary tract and gallbladder.
- **NERVOUS SYSTEM DISEASES:** Definition of signs and symptoms of the pathology of the nervous system: Motor symptoms, Sensory symptoms, Movement disorders, Speech disorders, Dysphagia, Pain, and chronic neuropathic pain. Dementias. Ischemic stroke. Parkinson's disease. Multiple sclerosis. Amyotrophic lateral sclerosis.

- **NUT 280D - INTERNAL MEDICINE - MEDICAL PATHOPHYSIOLOGY**

Topics discussed:



- Definition of the Normal and Pathological.
- The concepts of lesion, symptom, disease, etiology, and pathogenesis.
- General criteria of disease. Extrinsic causes of disease and action mechanisms.
- Cellular pathology, Cellular modifications: Regeneration, hypertrophy, hyperplasia, atrophy, metaplasia.
- Cellular storage: fluid storage, lipid storage.
- Cellular death: necrosis, apoptosis, cellular stress.
- Inflammation. Etiology and classification.
- Immunology and immunopathology, Immunodeficiency, autoimmune diseases, allergy.
- Hydro-electrolytic and Acid-base imbalance, laboratory tests, and parameters.
- Hematology: Definition of signs and symptoms of hematological pathology: Hemorrhage, Adenomegaly, Splenomegaly, Anemia, Leukocytosis, Leukopenia, Thrombocytosis, Thrombocytopenia. Anemias. Leukemia. Lymphomas. Myeloma. Treatment: Transfusion therapy, Infusion, and transplantation of stem / hematopoietic cells.

NUT 290 - Specialist Medicine

This course aims to provide learners with the tools for critical and up-to-date knowledge of the main pathological manifestations in specialty medicine, with particular reference to oncological, psychiatric, nephrological, and endocrine-metabolic diseases. Learning the fundamentals of etiology, pathogenesis, clinical presentation, diagnosis, prognosis, and therapeutic options is expected for these diseases. The topics explained in the course of the lectures will enable students to acquire valuable information for learning about the role of food in the mechanisms of carcinogenesis, the interactions between neoplasms and nutrition up to neoplastic cachexia, the role of food in reducing the side effects of cancer treatments, and nutrition in advanced and terminal stages of disease; learn the principles of clinical psychiatry applied to the field of dietetics, centered on eating disorders and the altered relationship with food and the study of psychopathological elements related to obesity to understand and identify in patients the aspects of food psychopathology and to know the therapeutic role of diet in such pathologies. Acquire the essential elements of knowledge of renal pathophysiology necessary for a dietary approach to integrating the complex management of the nephropathic patient during their diagnostic, therapeutic course, from the first detection of renal failure through the various stages of progression of chronic kidney damage to the replacement treatment of renal function; know the main elements of the hormonal regulation of food intake and energy metabolism, the pathogenetic foundations and main clinical manifestations of endocrine-metabolic diseases, and the relationships between the hormonal system, feeding behavior, and tumorigenesis; know, the primary diagnostic and therapeutic algorithms of the diseases illustrated in the teaching; obtain the appropriate tools to work in the metabolic-nutritional field to prevent and treat the diseases illustrated.

The following modules formulate this course:

- **NUT 290A - ONCOLOGY**
Topics discussed: The role of food in carcinogenesis, tumor nutrition interference, interference of cancer therapies on nutrition, the food problems in the advanced stages of the illness, communication problems, and ethical factors in food choices for the cancer patient.
- **NUT 290B - NEPHROLOGY**
Topics discussed: Anatomy and physiology of the kidney; methods of measuring renal function; understanding central kidney diseases, with particular emphasis on pathophysiology and clinical aspects of chronic renal failure; nutritional aspects in kidney disease, with specific attention to chronic renal failure and urolithiasis. Nutritional aspects of the patient in renal replacement therapy (hemodialysis, peritoneal dialysis, and kidney transplantation).
- **NUT 290C - ENDOCRINOLOGY**
Topics discussed: Introduction to the physiology of endocrine-metabolic functions; pathogenesis, clinical aspects, diagnosis, and treatment of hypothalamic-pituitary, thyroid, metabolic calcium-phosphate, adrenal gland, gonad diseases, alterations of the food behavior (DCA), obesity, dyslipidemia, diabetes mellitus, and hypoglycemic syndromes.
- **NUT 290D - PSYCHIATRY**
Topics discussed: Introduction, definition of mental disorder, and general information regarding the classification of mental disorders. Food, mind, brain, and culture. Eating Disorders: diagnostic criteria, clinical features, epidemiology, bio-psycho-social. Social pathogenesis and treatments. Obesity and psychosocial factors. Multidisciplinary treatment of eating disorders. The nutritionist's role in treating eating disorders and psychogenic obesity.

NUT 300 - Nutrition in Clinical Settings I

The course aims to provide knowledge on the proper application of food and nutrition in gastrointestinal diseases, oncology, neurological diseases, allergies and intolerances, artificial nutrition, and the impact of food and nutrition on the immune response. Tools for developing, formulating, and implementing specific diets will be provided.

This course consists of the following modules:

- **NUT 300A - CLINICAL NUTRITION II**



Topics discussed: The training objectives of this module are to assess the onset and evolution of the disease from a nutritional perspective, evaluate biochemical and instrumental data, and assess symptoms based on their characteristics, diagnosis, prognosis, related medical-nutritional risks, and short—and long-term complications. Planning medical-nutritional intervention: assessment of the therapeutic setting. The integrated multidisciplinary treatment. Medical-nutritional therapy: Indications for diet therapy and oral nutritional supplementation.

- **NUT 300B - CLINICAL NUTRITION III**

In this module, the following topics are covered:

- Definition and classification of the clinical-nutritional aspects of the following diseases: neurological diseases (ALS, Stroke, vascular and non-vascular degenerative neurological diseases) and their clinical-nutritional evolution concerning the dysphagic aspect.
- Allergies and intolerances.
- Food and Nutrition: Impact on the Immune Response.
- Artificial nutrition (N.E. - N. P.).
- Clinical-Nutritional Diagnosis.
- Onset and evolution of diseases from a nutritional perspective, biochemical and instrumental data evaluation, symptom characteristics, diagnosis, prognosis, related medical-nutritional risks, and short- and long-term complications.
- Planning of medical-nutritional intervention evaluation of the therapeutic setting: outpatient, day hospital, inpatient, community, specialized treatment centers for medium—long term treatment, and criteria for referral to different facilities.
- Integrated multidisciplinary treatment: collaboration with other specialists for the nutritional aspect (neurologists, geriatricians, internists, etc.) and other professionals dedicated to patient care and treatment (speech therapists, physiotherapists, etc.).
- Medical-nutritional therapy.

- **NUT 300C - TECHNICAL DIETARY SCIENCE 6**

This module covers the following topics: From medical diagnosis to dietary evaluation, we treat patients suffering from diseases and disorders of the gastrointestinal and hepatobiliary tract, as well as surgical patients in the pre- and post-operative phases, cancer patients, and those undergoing bone marrow transplants. This includes the physical examination of the patient.

Carry out a dietary diagnosis based on the analysis and interpretation of data, from scientific evidence and L.G., to the planning and implementation of the nutritional intervention. Define methods for monitoring and evaluating outcomes. Set up the nutritional refeeding program for surgical patients or those who have undergone a fasting period. Share the nutritional program with the multidisciplinary team caring for the patient. Therapeutic education. Develop and discuss clinical cases, whether actual or simulated, related to the pathologies covered by the module.

- **NUT 300D - TECHNICAL DIETARY SCIENCES 7**

In this module, the following topics are covered: From medical diagnosis to dietary evaluation of patients suffering from neurological diseases (SLA - STROKE - MULTIPLE SCLEROSIS - DEMENTIA), allergies and intolerances, pathologies with impact on the immune response, pathologies requiring artificial nutrition (NE-NP): Carry out a dietary diagnosis based on the analysis and interpretation of data, from scientific evidence and L.G. to the planning and implementation of the nutritional intervention. Share the monitoring program. Therapeutic education. Development and discussion of clinical cases, actual or simulated, on the pathologies covered by the module.

NUT 310 - Food and Service Management

The Food and Service Management course deals with managing food and nutrition services. The course content covers the principles of food service systems management. Topics include menu planning, purchasing, production, distribution, service safety, sanitation, financial management, human resources management, and management functions—case studies to enhance learning and develop critical thinking.

NUT 330 - Nutrition In Clinical Settings II

The course aims to provide students with the knowledge and tools to establish a nutritional treatment plan by nutritional standards and guidelines, including case assessment, goal setting, operational methods, and verification methods for obesity, kidney disease, and intestinal failure. According to nutritional standards and major specific guidelines, the proper application of food and nutrition in diseases related to eating disorders, obesity, kidney disease, and intestinal failure will be taught. Tools for developing, formulating, and implementing specific diets will be provided. The following modules formulate this course:

- **NUT 330A - CLINICAL NUTRITION IV**

The topics covered in this module are:

- 1) Obesity: Classification of weight statuses; Epidemiology; Pathophysiology; Complications; Hints of drug therapy; Bariatric surgery (types of intervention, indications).



- 2) Eating Behavior Disorders: DSM-V Diagnostic Criteria; Clinical-Nutritional Diagnosis; Onset and evolution of disease from a nutritional point of view; Evaluation of biochemical and instrumental data; Short- and long-term complications; The refeeding syndrome; Planning medical-nutritional intervention; Evaluation of the therapeutic setting: Outpatient, Day Hospital, inpatient, community, specialized treatment centers for medium -long term treatment and criteria for referral to different facilities; Nutritional urgency in DCA: hints on compulsory health treatment and the state of necessity; Integrated multidisciplinary treatment; Medical nutritional therapy; Diet therapy; Artificial nutrition.

- 3) Intestinal Insufficiency: Definition; Anatomic-functional classification; Epidemiology; Pathophysiology; Short-, medium-, and long-term complications; Clinical and nutritional assessment; Hints of drug therapy with reference to new hormone therapy; Artificial nutrition; Setting of care and home management of therapies.

- NUT 330B - TECHNICAL DIETARY SCIENCES 8

The topics covered in this module are:

1. Clinical classification by medical diagnosis and dietary assessment of patients with kidney disease with or without associated complications (such as hypertension, obesity, diabetes, etc.): Identification of primary disease and comorbidities; Anthropometric Assessment: methods and tools; Data analysis Biochemical and related to pathology; Nutritional assessment of dietary habits: methods and tools; examination of the patient: recognition of signs and symptoms of malnutrition; a general overview of the issues to motivate dietary treatment and foster change; diagnosis diet: identify the problem and relate to the causes; define the characteristics of the symptoms; formulate the diagnosis diet.
2. Planning and implementation of nutritional intervention for renal patients through the scientific evidence and the guidelines in the scientific literature: Notes on the birth of low-protein diets and their evolution over time definition of therapeutic goals (priority and secondary objectives); Choice of operating modes; Defining the reference weight (ideal, actual, or desirable); Calculation of basal energy expenditure and total adjusted based on the clinical situation; Analysis and calculation of protein requirements and micronutrients in patients with: Chronic Kidney Disease: Diet 0.8 g, 0.6 and 0.3 g of protein; IRC with complications and associated diseases (diabetes, gout, etc.); Nephrotic syndrome; Dialysis: hemodialysis and peritoneal dialysis.
3. Kidney transplantation.
4. Kidney Stoney.
5. Formulation of a customized dietary plan.

Development and discussion of real clinical cases of pathologies covered by the module.

- NUT 330C - TECHNICAL DIETARY SCIENCES 9

This module covers medical diagnosis and dietary evaluation of patients suffering from overweight, obesity, and severe obesity undergoing medical or post-surgical treatment (with particular reference to Bariatric Surgery), type 1 and type 2 diabetes, hypoglycemia, dyslipidemia, hyperuricemia, and metabolic syndrome. Body composition. Detecting signs and symptoms of malnutrition due to excess or deficiency related to the pathology. From scientific evidence and L.G. to the planning and implementation of the nutritional intervention: carry out the dietary/nutritional diagnosis, define the objectives of the therapeutic plan, select the therapeutic options and operating methods, define the reference weight (ideal, reasonable, desirable weight), calculate the energy expenditure based on the predictive formulas, calculate the energy and nutrient needs based on the clinical situation and the interpretation of the data, define the methods of monitoring and evaluating the outcomes—dietary therapy (LCD, VLCD-K, post-operative diet). The dietitian's role in nutritional and behavioral education meetings is to establish a nutritional rehabilitation program and educate individuals about the risks associated with weight fluctuations. The methodology of nutritional intervention through carbohydrate counting. The module covers the development and discussion of real clinical cases of pathologies.

- NUT 330D - TECHNICAL DIETARY SCIENCES 10

Topics discussed:

- From medical diagnosis to dietary assessment of patients with eating disorders (DCA): classification of the patient; choice of method and tools for collecting data relating to the patient's behavior and feeding habits. Choosing a method to estimate the intake of energy and nutrients; choosing the methodology and tools best suited for the anthropometric evaluation; physical examination of the patient: recognition of signs and symptoms of malnutrition by excess or defect, disease-related.
- Choosing a method to assess the reasons for change and tools to promote change.
- Diagnosing the diet is based on the analysis and interpretation of data.
- By scientific evidence and guidelines for planning and implementing nutritional intervention: definition of dietary goals (priorities, goals, and treatment contract); selection of treatment options; choice of operating modes; definition of the reference weight (ideal weight, reasonable, desirable); calculation of energy expenditure based on predictive formulas, calculating energy requirements and nutrients based on the clinical situation, and formulating dietary prescriptions for specific diseases.
- Definition of procedures for monitoring and evaluation of outcomes.



- Therapeutic education: The role of the Dietitian in meetings of nutrition and behavior education, setting the nutritional rehabilitation program, managing motivation and resistance to change, the dangers of variations in weight and body composition, managing binges and compensation methods, and defining appetite, hunger, and satiety.
- Communication skills: develop soft skills such as communication, teamwork, and negotiating.
- Development and discussion of clinical cases.

NUT 340 - Nutrition in Pregnancy and Developmental Age

The course aims to provide students with nutrition knowledge during the developmental age, encompassing the maternal-child unit (pregnancy, infancy, childhood, and adolescence). For each stage, physiological, biochemical, and clinical aspects, as well as nutritional needs and diet therapy in both healthy states and pathological conditions, will be developed. Additionally, some factors specific to postmenopausal and cancer-affected women (breast cancer) will be addressed.

This course consists of the following modules:

- NUT 340A - PEDIATRICS

The following topics are explored in this module:

- The fetus and the mother-child unit
- The infant, the child, the teenager - development and characteristics
- Breastfeeding, theory, and practice
- Formula feeding, dietary therapy
- Weaning / complementary feeding, clinical and psychological-related aspects
- Assessment of growth and nutritional status. Nutritional needs and feeding regulation, dietary errors
- Anatomy, development, and functions of organs and systems involved in feeding and metabolism.
- The surgical and medical conditions that impede or harm the nutrition process; intervention modalities
- Allergies and food intolerances
- Childhood-onset diabetes mellitus
- Childhood essential obesity and its complications
- Dyslipidemia and metabolic diseases
- School meals
- Artificial nutrition in pediatrics.

- NUT 340B - TECHNICAL DIETARY SCIENCES 4 (OBSTETRICS AND GYNECOLOGY)

The following topics are explored in this module:

- Energy and nutrient needs, according to the guidelines, in the physiological pregnancy.
- Toxoplasmosis and listeria in pregnancy: transmission routes and hygienic precautions – the role of food.
- According to the guidelines, a nutritional plan for a non-physiological pregnancy is essential.
- Diabetes in pregnancy (gestational diabetes, type 1 diabetes, type 2 diabetes), criteria for screening and diagnosis of gestational diabetes, gestational hypertension, behavioral and dietary counseling in gestational hyperemesis.
- Presentation and discussion of pregnant women's case studies (physiological pregnancy, gestational diabetes, and hypertension).
- Energy and nutrient needs of women during lactation.
- Setting a nutritional plan in postmenopausal women according to the pathophysiological changes (osteoporosis, abnormal lipid profile, weight gain).
- Notions about nutritional problems in breast and ovarian cancer subjects.
- Development and discussion of clinical cases, actual or simulated, on the pathologies covered by the module.

- NUT 340C - TECHNICAL DIETARY SCIENCE 5 (PEDIATRICS)

The following topics are explored in this module:

- Breastfeeding: nutritional characteristics of colostrum, transition milk, and mature milk.
- Formula feeding, different types of milk (starting, follow-on, and transition milk).
- Complementary feeding and weaning?
- Nutrition and food requirements in preschool, school-age children, and adolescents, factors affecting nutrition, and significant dietary errors.
- Dietetic therapy in type 1 diabetes.
- Dietetic therapy in celiac disease.
- Dietetic therapy and inherited metabolic diseases: phenylketonuria.
- Development and discussion of clinical cases, actual or simulated, on the pathologies covered by the module.

NUT 350 - Laboratory II

This teaching aims to provide knowledge of using anamnestic data, anthropometric and body composition assessment parameters, and energy balance assessment parameters to identify and plan appropriate



interventions for preventing malnutrition in the healthy population and therapeutic nutritional interventions in patients with diseases.

Prerequisites: permission of the instructor

Credit: 1 CH

NUT 380 - Community Nutrition

The Community Nutrition course focuses on promoting good health through nutrition and the primary prevention of nutrition-related illness in the population. This course explores past and present community and public health nutrition problems, programs, and policies. Topics include assessing communities, developing public health programs and interventions, principles of epidemiology, public policy making, cultural competency, nutrition education, nutrition marketing and promotion, and current public health programs and policies.

NUT 390 - Nutrition Counselling

The Nutrition Counselling course is a three-credit-hour course designed to develop the appropriate attitudes, knowledge, and skills necessary for effectiveness as a nutrition counselor and helping professional. The overall goal is to establish a foundation for Clinical Dietetics, which completes the coverage of disease states encountered by dietitians. It is designed to develop appropriate attitudes, knowledge, and skills for effectiveness as a nutrition counselor and allied professional.

NUT 400 - Nutrition and Prevention

The Nutrition and Prevention Course proposes a holistic and evidence-based approach to diet—and lifestyle-sensitive diseases. This approach can be used in primary prevention pathways for the population, risk groups, or even in the clinical setting of secondary prevention. Therefore, the objective of this course is to illustrate and test the technical tools and preparatory dietary knowledge, coupled with the critical analysis of correct intervention methodologies, the acquisition of skills in analyzing intervention contexts, and the consequent adoption of suitable methods, and understanding of the cultural development of food in the social context.

This course consists of the following modules:

- NUT 400A - CLINICAL NUTRITION I (PREVENTIVE)
Topics discussed: Food and health: data analysis concepts and reference of some documents (WHO, FAO, UNICEF); EBM in clinical nutrition and preventive EBHP: areas of application, tools, effects; Comparative and critical analysis of some policy documents and guidelines: INRAN, WCRF / AICR, NCEP, USDA Guidelines; Analysis of projects based on lifestyle modification and nutrition, assessing methodological aspects, expected effects, and natural strengths and weaknesses; Food-related sustainability and sustainable development: position papers and review of innovative experiences; Ethics of prevention and the dietician's role in preventive clinical nutrition.
- NUT 400B - TECHNICAL DIETARY SCIENCES 12
Topics discussed: Meaning of prevention and dietary sustainability. Options and intervention strategies of the Dietitian to promote the adoption of a sustainable dietary pattern in the field of prevention; the Dietitian's competencies in the field of prevention in the clinical area and examples of application (presentation of projects, methods, and tools used for the prevention of breast and colorectal cancer); anti-inflammatory and low-glycemic-index diet as a prevention tool; the role of the Dietitian in health education projects concerning sports and lifestyle.
- NUT 400C - GUIDELINES AND EVIDENCE-BASED MEDICINE
Topics discussed: Introduction to the Principles of Evidence-Based Medicine; Systematic literature reviews and meta-analysis; Guidelines and critical review; Integration of scientific evidence and clinical decision-making, and how to write a research protocol.
- NUT 400D - SOCIOLOGY OF HEALTH AND ILLNESS
Topics discussed: How the sociologist analyzes social complexity. Elements of sociology relevant to the health professions; concepts of health and illness and models of care; critical facts about the role of food and nutrition in social relations; social conditioning of food choices; the influence of food in shaping individual and social inequalities in food consumption; the socio-historical organization of food trade and the representation of food in contemporary society; the organization of food trade in its different forms: from the supermarket to fast food; and symbolic aspects of the representation of food in popular religious traditions.

NUT 410 - Health Promotion and Nutrition Education

This course aims to equip students with the tools to identify the biological, psychological, and social needs of individuals and communities related to food and nutrition. Design, implement, and evaluate educational health promotion and prevention interventions in school, social, and health settings. Recognize the critical elements of educational design on the individual and community, with particular reference to nutrition. Describe the essential elements of available tools and methods for health promotion with specific reference to the nutritional field.

The following modules formulate this course:

- NUT 410A - PEDAGOGY
Topics discussed: Expectations and knowledge: the pedagogy in the health field. Programming Educational Activities: The Steps of Planning. Educational and health needs and purposes: the definition. The assignment



components are intellectual, operational, and interpersonal communication skills. Planning the assessment. The learning process: realizing it, favorable conditions, and methodology. The Educational Relationships: Theoretical Starting Points and Practical Exercises on Relationships and Communication. Activating the change in the patient's lifestyle: resistance and facilitation. The dietitian utilizes systems and professional communication skills in various settings, including schools, hospitals, public or private healthcare facilities, and gyms—counseling skills in face-to-face and group-based interviews.

- **NUT 410B - HEALTH EDUCATION**

Topics discussed: Definition of individual and community. Definition of health, disease, prevention, health promotion, and epidemiological framework. Health needs analysis, definition of aims, and evaluation systems. Bibliographic search applied to intervention planning. Information sources for health education. Educational Planning for the Individual and the Community: Models and Applications. Design of health interventions in schools. Health Promotion and Intervention Planning in Multicultural Societies. Health promotion through new communication channels. Media education.

- **NUT 410C - TECHNICAL DIETARY SCIENCES 13**

Topics discussed: Definition of nutrition education and primary intervention setting identification. The media's influence: Research to evaluate the main strategies used to influence purchasing decisions. Some useful tools for the dietitian include the food pyramid (with its limits and opportunities), dietetics by volume, and education for conscious consumption through reading food labels. Food education through taste education. Notes on social marketing and analysis of its possible use in health education.

NUT 420 - Quality Control Catering Service and Food Safety Regulations

The course aims to provide students with the fundamental knowledge necessary to understand mass catering. At the end of the lectures, students can design, implement, and evaluate dietetic-nutritional interventions for mass catering to achieve total meal quality in terms of hygienic-sanitary safety, organoleptic characteristics, and business economics. In addition, students will learn to collaborate with other healthcare members to safeguard sanitary and hygienic working conditions.

Credits: 4 CH

This course consists of the following modules:

- **NUT 420A - BUSINESS ECONOMICS**

Topics discussed: Food catering services; food production catering industry; external environmental catering factors; business organization; accounting and business finance; production and costs; strategic planning and management control; Balance sheet analysis.

- **NUT 420B - FOODBORNE DISEASES AND FOOD INSPECTION**

Topics discussed: Characteristics of FBDs and predisposing factors. Reportable and non-reportable diseases. Sources of information on FBDs and the perception of relative risk. The spread of FBDs at the American, European, and world levels. FBDs are caused by viruses, bacteria, protozoa, parasites, and chemical and biochemical agents (environmental contaminants, drug residues, pesticides, etc.). FBD and involved foods. Prevention of FBD: application of food safety principles. Food inspection and its limits: current legislation, traditional methods, and new perspectives.

- **NUT 420C - FOOD TECHNOLOGY**

Topics discussed: Fundamental principles of collective and commercial catering (cold and hot, cook and chill, etc.). Production and Meals on Wheels service. Major facilities and equipment are present in commercial and collective catering kitchens. Management problems within a catering service (HACCP manuals, complaints handling). Critical analysis of the contract specifications of catering services. Production technologies of the leading products: fruits, vegetables, canned vegetables, meats, fish, dairy products, and meat products. Chemical, physical, and microbiological transformations of foods. Consumers perceive quality through origin, production technology, food legislation, and sensory analysis. Commercial aspects and food labeling are included in contract documents.

- **NUT 420D - TECHNICAL DIETARY SCIENCE 11**

Topics discussed: Food safety: the skills and role of the Dietitian, regulatory references, self-control, risk assessment, and management in the production process. Surveillance and investigations are performed in case of suspected or confirmed infection or food poisoning. Surveillance in the marketing and use of plant protection products/supplements and the prevention of mushroom poisoning. Health information and education on the hygiene of foods and food preparations in celiac disease. Control and surveillance of materials in contact with food. Additives, flavorings, and enzymes in the food sector.

NUT 430 - Research Methodology and Updating in Dietetics

This course teaches students how to conduct, quantify, and evaluate nutrition research in observational or experimental settings. They will learn the fundamentals of statistics applied to biomedical science and dietetics, as well as the computer tools and methodologies to construct and validate a dietary questionnaire, present scientific data, read a descriptive table or graph, and understand the results of an inferential analysis. In particular, they will need to know and interpret the role of random variability in nutritional research, know how to perform



exercises related to the calculation of point and interval estimates and the application of hypothesis testing, demonstrate autonomy in the use of computer applications, especially about data processing according to current privacy regulations, writing scientific papers/theses/articles, electronic data processing from a statistical point of view and their presentation, performing bibliographic searches through web databases, processing online questionnaires for data collection, and ability to read a scientific article critically.

Prerequisites: 90 credits.

This course consists of the following modules:

- NUT 430A - COMPUTER SCIENCE II
Topics discussed: Data management according to the government privacy laws; Word processing and formatting by a software application; Tables, graphics, and data analysis by spreadsheet; Excel main statistical functions: descriptive indexes and inference tests; Web searches on online databases; Online questionnaire creations and data results analysis; Results presentation by slides.
- NUT 430B - STATISTICS FOR RESEARCH
Topics discussed: Development and validation process of questionnaires for measuring dietary habits. Descriptive statistics. Basic concepts and examples. Definitions of statistics. Types of variables: categorical variables and quantitative variables. Sample data matrix. Data description: frequency distributions (counts, relative and cumulative frequency, relative and cumulative percent frequency). Contingency tables. Measures of central tendency and measures of dispersion. Introduction to probability (conditional probability and independent events). Inferential statistics. Sampling. Normal distribution and confidence intervals. P-value. Statistical tests (chi-square, Student, analysis of variance, non-parametric tests, correlation, and linear regression).
- NUT 430C - RESEARCH METHODOLOGY
Topics discussed: The research in the context of dietetics; the critical reading of a paper; the research hypothesis; the research question; the study design; primary and secondary studies; the validity of a survey; the database; the bibliographic research; ethical aspects of research; the thesis for graduation.

NUT 450 - Laboratory III

The course aims to provide students with the fundamental knowledge and tools to design and evaluate dietary nutritional interventions, such as mass catering and nutritional surveillance activities, as well as to plan educational interventions for health promotion and prevention in school, social, and healthcare settings.

Prerequisites: permission of the instructor

Credit: 1 CH

NUT 470 - Internship I

As part of the educational activities offered by the Bachelor of Science Degree in Dietetics, the internship in clinical settings, including food service and prevention, is a fundamental part of achieving the general educational objectives. Learning in various areas is intended to develop skills in identifying, planning, delivering, and evaluating the provision of nutritional care required to meet the training objectives, based on the knowledge and skills acquired, to be carried out with autonomy and responsibility. In Internship I, the student will have access to techniques for surveying dietary habits and the bromatological composition of macro- and micronutrients in significant foods, conduct dietary anamnesis on healthy or diseased subjects, compile and calculate intakes using the food diary method, and learn how to use food composition tables.

Prerequisites: permission of the instructor

Credits: 8 CH

NUT 475 - Internship II

In Internship II, the student will be involved in guided study or self-study activities that enable them to integrate theoretical knowledge and research, and deepen and develop new expertise in a specific clinical setting. They will have to attend internships in different clinical departments under the guidance of an experienced tutor, where they will deepen the technique of conducting interviews aimed at the quantitative and qualitative description of dietary intake of subjects referred by the referring tutor. It will address how to solve simple, actual, or simulated clinical cases.

Prerequisites: Complete the required hours and examination for Internship I.

Credits: 10 CH

NUT 480 - Internship III

The student will have the opportunity to attend internships in various departments of specialized medicine, collective catering firms, and at territorial and social welfare services that focus on the preventive aspect of diseases resulting from improper eating habits. With the guidance of an expert tutor, they will be able to develop elaborate and integrate information and knowledge with direct experience in the field, including through curricular internship projects related to the nutritional problems of the population or homogeneous groups within the population, and across different age groups. The student may also be involved in guided study or self-study activities, enabling them to integrate theoretical knowledge already acquired or research and deepen and develop new expertise in the specific clinical field.



Prerequisites: Complete the required hours and examination for Internship II.

Credits: 12 CH

NUT 495 - Senior Project

The senior project may take many forms: it may be a group project to pursue an identifiable problem with a faculty sponsor or to choose a topic for critical review.

Prerequisite: 90 credits.

NUT 510 - Nutrition at the metabolic level: biochemical structures, reactions, and regulation

The Metabolic Level Nutrition: Biochemical Structures, Reactions, and Regulation course aims to provide the student with biochemical knowledge of the nutrients in food, the molecular mechanisms of their absorption and interactions, and their utilization for energy and structural purposes by various tissues, with particular emphasis on regulatory mechanisms. The course will provide up-to-date knowledge regarding the biochemical basis of the major metabolic pathways and the physiological principles underlying the utilization of the energy supplied by nutrients. This knowledge will enable the student to apply the concepts of human nutrition effectively and contribute to the development of functional foods for human health.

Credits: 5 CH

NUT 520 - Food-level nutrition: production technologies and quality management

The Course is divided into two modules and addresses nutrition principles at the food level, particularly regarding chemistry and production technologies, product, process, and supply chain quality management, as well as certification systems. The first part of the Course explores the principles of Nutrition at the food level, particularly regarding chemistry and production technologies. The program explores various topics, including food characteristics and principles of food preservation. In addition to an initial section highlighting the role of micro and macronutrients, the course examines the principles of food preservation. Then, it proceeds to food technology in various industries, including the specifics of individual products and their production processes. It then addresses sensory quality within the food characterization process. The second part of the course focuses on quality in the agri-food supply chain, which has declined significantly. It aims to outline the conceptual and operational management tools for system, product, and supply chain quality. An overview of various quality management systems (corporate, environmental, food safety, ethical, social, etc.) and their role in production is provided. Food Traceability and Safety topics will also be covered, focusing on product and process certifications, labeling systems, and environmental and social sustainability perspectives.

Credits: 5 CH

NUT 530 - Organism-level nutrition: tissues, organs, and functions

The course aims to make the student acquire knowledge of the functional organization of the gastrointestinal system, to deepen the understanding of how digestive processes function and the mechanisms in charge of their control, to deepen the study of the power of the endocrine system on metabolism, growth, and food intake, to make the student acquire knowledge of the relationship between nutrition and processes specific to certain physiological conditions of the body such as exercise, and understanding of nutrition at the level of the body. Upon completing the course, students will have acquired a comprehensive understanding of the molecular mechanisms underlying the digestion, absorption, and transport of macronutrients and micronutrients.

Credits: 5 CH

NUT 540 - Food intolerances, immunity, and drugs

The Course aims to provide the basic knowledge of molecular medicine and cellular pathology with specific references to Cellular Pathology, General Mechanisms of Damage Production from Repair to Disease, Main Mechanisms of Cellular Death, Inflammatory Response: Defensive and Reparative, Immune Response, Food Allergies and Intolerances—celiac disease, Food Toxins, Substance-Related Addictive Disorders, and principles of Oncology.

NUT 560 - Nutrition and microorganisms: infections and fermentations

The course aims to provide students with knowledge of the primary microorganisms of medical interest and their roles in physiological and pathological processes in humans. Particular attention will be paid to the microorganism-host relationships of mutualism, commensalism, and parasitism, as well as the mechanisms underlying diseases related to pathogenic microorganisms, especially those that are foodborne, and possible preventive and therapeutic approaches.

NUT 580 - Principles of Nutraceuticals

The Principles of Nutraceuticals course explores the discipline that examines the components or active ingredients of foods with positive health effects, as well as their role in disease prevention and treatment. Instead of eating and curing yourself, here is how to heal yourself by eating. Therefore, the role of Nutraceuticals becomes crucial for those who want to understand in detail what happens when we feed ourselves, what principles are activated, and what real consequences this has for our health. Nutraceuticals refer to the recognition, through a renewed relationship between biology, chemistry, and medicine, of the close connection between our eating habits and health. The course analyzes nutraceuticals (mostly of plant origin and found in fruits and vegetables, such as fiber,



soy protein, phytosterols, and polyphenols) and their effects on our bodies. They range from maintaining wellness to preventing cardiovascular and degenerative diseases. They can strengthen the immune system and regulate intestinal functions, or help with sports and cosmetic purposes.

NUT 600 - Methods of nutritional analysis

The course aims to train master's degree graduates who are experts in clinical biochemistry, biostatistics, and epidemiology related to health status, human nutrition, and research and development. The course is divided into two modules:

- CLINICAL BIOCHEMISTRY didactic module, aims to provide the general concepts on the organization and processes of a laboratory to increase knowledge on the pathophysiology of biochemical markers associated with specific human diseases and to provide the methodology for the study of the biochemical and molecular basis of human diseases and the assessment of the nutritional status associated with them.
- MEDICAL STATISTICS module, aims to provide the basic principles of biostatistics and epidemiology as applied to nutrition, to analyze and interpret data competently; to present valuable tools to be able to apply statistical and epidemiological methods, to contribute to knowledge production and health promotion through nutrition; and to stimulate critical sense with the use of biostatistics and epidemiology to evaluate scientific evidence and prepare students to face challenges and opportunities in the field of human nutrition.

Credits: 4 CH

NUT 610 - Eating Behavior Disorders and Hormonal Control

The course aims to provide a detailed examination of the neuroendocrinology of nutrition and energy control, equipping students with the essential elements to understand and analyze the most common eating disorders, and to correctly guide patients toward a more suitable eating behavior and lifestyle. Because of the analysis addressed, the nutritionist, while not entering into the diagnostics and therapy that are the responsibility of the physician, will have to learn the essential elements that enable one to identify, in a given framework of nutritional deficiency, the presence of eating behavior disorders that pertain to the psychic sphere. The student will have to learn the mechanisms that regulate hunger and satiety and that are altered in anorexia and bulimia. The course will introduce students to the framework of endocrine control of metabolism from the specific perspective of altered nutritional status, dependent on the function of the entire hormonal system.

NUT 620 - Epidemiology and genetics of nutrition

The course is divided into two modules.

- The EPIDEMIOLOGY module provides the skills necessary to manage nutrition governance at the level of large groups of individuals and carry out institutional prevention and intervention programs on a sizeable numerical scale with significant social impact. The epidemiological component of the examination involves applying knowledge of medical genetics to population studies. This part is based on a thorough understanding of techniques for measuring nutritional parameters in healthy or diseased human populations, learning the primary methods of study design, causality assessment, and the main statistical techniques for data evaluation.
- The GENETICS OF NUTRITION module aims to provide students with the basic knowledge of medical genetics and the tools needed to analyze and integrate genetic, genomic, and nutritional profiles to lay the foundation for a personalized nutrition approach. The concept of genetic variability and the binary relationship between genes and nutrients (nutrigenetics and nutrigenomics) will be explored. The focus will be on monogenic and complex inherited diseases that require specific nutritional interventions, as well as the mechanisms underlying an individual's response to the environment, particularly to diet.

Credits: 4 CH

NUT 625 - Metabolic Syndrome and Diseases of the Gut

The course "The Metabolic Syndrome and Diseases of the Gut" aims to provide knowledge on the pathophysiology, clinical manifestations, and management of significant diseases of high prevalence, particularly regarding the metabolic and nutritional aspects relevant to disease risk and the prevention and management of these diseases. The course also aims to provide knowledge on the anatomy and physiology of the gastrointestinal system, its endocrine regulation, metabolic and bariatric surgery, and malnutrition secondary to certain surgeries and specific diseases.

NUT 630 - Nutrition and health status: traditional and innovative nutritional models

Proper nutrition is a crucial aspect of preventing the most common diseases. This course will guide students through food groups, emphasizing the nutrients that help maintain health. Central topics will include knowledge of essential nutrition, the primary methods for assessing body composition and energy expenditure, and the fundamentals of preventing cardiovascular and neoplastic diseases. The principles of the Mediterranean diet, the ketogenic diet, and dietary interventions applied to gastrointestinal disorders, as well as the properties of nutraceuticals and their impact on human health, will also be described. Finally, the effects of diet on the gut microbiota will be described, and the impact of microbiota metabolism on health status will be illustrated.



NUT 635 - Lifestyles and nutrition at different ages of life

The course aims to provide essential preparation for acquiring knowledge, skills, and competencies in food and nutrition, with a focus on nutritional requirements at different stages of an individual's life.

Guidance will be provided on the various physiological needs of women (pregnancy, lactation, and menopause), children (from weaning to diet in developmental and adolescent age), the elderly, and athletes. Aspects of nutritional counseling (assessment of nutritional status and estimation of energy and nutrient requirements for developing a dietary plan) will also be addressed.

NUT 640 - Lifestyles and nutrition for the prevention of chronic diseases

The course provides basic training to acquire knowledge and skills in proper nutritional and lifestyle approaches to prevent and manage major chronic non-communicable diseases (cancer, cardiovascular disease, diabetes). The primary chronic diseases will be examined, providing the tools to learn about nutritional interventions for preventing and managing these diseases, promoting well-being, and enhancing quality of life.

NUT 690 - Research and Master's Thesis

Under the guidance of a faculty member, students will present a master's thesis on a research project they have undertaken.

Prerequisite: permission of the instructor

Credits: 6 CH