Nancy Jo Getson

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Summary

A dedicated educator with extensive experience teaching physics, astronomy, engineering, and computer science courses at both 2-year colleges and 4-year universities; a skilled communicator and dynamic course creator; a compassionate advocate for all students

Employment Experience

Senior Lecturer, Department of Physics and Astronomy Lecturer II, Department of Physics and Astronomy Lecturer I, Department of Physics and Astronomy, University of Central Arkansas, Conway, AR May 2014–present May 2004–May 2014 August 2000–May 2004

Instruction

- Instructing lower-division engineering, physics, and astronomy courses
- Developing new engineering courses to add to the course catalog
- Constructing new laboratory exercises for PHYS 1400, 1401, 1410, 1420
- Organizing and publishing an online library of laboratory exercises for PHYS 1400, 1401, 1410, and 1420
- Creating and maintaining an extensive network of online course webs

Service

- · Participating in the ongoing ABET accreditation process for the Engineering Physics program
- · Serving on multiple Department and College of Natural Science and Mathematics faculty hiring committees
- · Served on College of Natural Science and Mathematics Curriculum & Assessment Committee
- Served on College of Natural Science and Mathematics Lecturer Promotion Committee

Outreach

- Cyber Discovery Camp Counselor, Summers 2014–15: On-campus week-long residential camp targeted at high school student teams interested in engineering and computer science (sponsored by cyber.org)
- Analysis and Investigation of Cyber Scenarios (AICS) Camp Co-Director, Summers 2016–20: On-campus week-long residential camp targeted at high school teams (sponsored by cyber.org)
- Summer Mathematics and Science Program, Summer 2017: On-campus week-long day camp targeted at middle school students

Visiting Instructor, Department of Physics

August 1998-May 1999

University of Idaho, Moscow, ID

- Developed and implemented a workshop-based curriculum for PHYS 100: Introduction to Physics
- Wrote new laboratory exercises for PHYS 104: Introduction to Astronomy
- Maintained an extensive network of online course webs
- Installed and administered Linux server for student access to course webs

Instructor, Division of Science and Math Grays Harbor College, Aberdeen, WA

- Instructed all engineering and computer science courses
- Proposed, developed, and taught new courses in engineering and computer science
- Revised curriculum of existing courses to align with and transfer to state universities
- Provided academic advising to approximately 30 students per academic quarter
- Installed and administered a Linux server to provide email for students and faculty
- Supervised student-administered email and web servers
- Published extensive course webs for each class
- Served on Library Advisory; Safety; and Computer & Related Technologies Committees
- Faculty Advisor to the Engineering, Math, and Science Club

Instructor, Division of Math and Science

Scottsdale Community College, Scottsdale, AZ

- Instructed a broad range of physics, astronomy, and engineering courses
- Implemented Engineers in the Field: A Guest Lecture Series for an engineering design class
- Co-piloted a physics education program in the local high school district
- Faculty Advisor to SCC Astronomy Club and SCC Engineering and Technology Club

September 1995-June 1998

January 1991-May 1995

Education

M.S., Engineering Science (Materials Science)

B.S., Physics (Honors College)

Arizona State University Michigan State University

PHYS 3345: Optics

ENGR 1301: Introduction to Engineering

ENGR 2311: Engineering Statics

ENGR 3311: Engineering Dynamics

December 1990 September 1987

Summary of Courses Taught

The University of Central Arkansas

PHYS 1400: Physical Science for General Education

PHYS 1401: Descriptive Astronomy PHYS 1410: College Physics I PHYS 1420: College Physics II

The University of Idaho

PHYS 100: Introduction to Physics PHYS 111: College Physics I
PHYS 104: Introduction to Astronomy PHYS 211: University Physics I

Grays Harbor College

ENGR 100: Engineering Orientation ENGR 274: Engineering Mechanics - Dynamics

ENGR 101: Introduction to Engineering Graphics

ENGR 284: Mechanics of Materials

ENGR 102: Introduction to Engineering Design

COMSC 115: Programming Basics

ENGR 154: Computer Programming for Engineers COMSC 209: Introduction to Programming

ENGR 170: Introduction to Materials Science COMSC 210: Programming in C++

ENGR 264: Engineering Mechanics - Statics COMSC 211: Introduction to Data Structures

Scottsdale Community College

AST 101: Survey of Astronomy

AST 111: Introduction to Astronomy

PHY 115: University Physics I
PHY 116: University Physics II

AST 125: Astronomy Lab I

AST 126: Astronomy Lab II

ECE 100: Introduction to Engineering Graphics

ECE 105: Intro to the Languages of Engineering

ECE 106: Intro to Computer-Aided Engineering

ECE 111: Engineering Mechanics - Statics

PHY 112: College Physics II

ECE 212: Engineering Mechanics - Dynamics

Related Skills and Abilities

Course Creation: Syllabus origination, design/implementation of laboratory exercises, content creation for in-person and online delivery Curriculum Development: Curriculum mapping and alignment

Assessment: Defining learning objectives, formalizing and assessing student outcomes

Instructional and Lab Tools: PRS RF Response System, SMART Response XE, LoggerPro, LabQuest, BOE-Bots, Stellarium, Project Clea

Programming Languages: C++, FORTRAN, Pascal, HTML, pBasic

Productivity and LMS Tools: MS Office, iWork, Google Workspace, Blackboard Ultra

<u>Professional Affiliations and Certifications</u>

American Association of Physics Teachers

American Society for Engineering Education

Washington Council for Engineering and Related Technologies Education

Arizona Community College Board Certification: Regular A.1.a, engineering and physics

References

Dr. Carl Frederickson, Professor and Chair Department of Physics and Astronomy University of Central Arkansas

Conway, AR 72035 501.450.5900 carlf@uca.edu Dr. William Slaton, Professor and Director of Engineering Physics

University of Central Arkansas

Conway, AR 72035 501.450.5905 wvslaton@uca.edu Dr. Ashley Hicks, Outreach Coordinator Arkansas School for Math, Science,

and the Arts Hot Springs, AR 71901 501.622.5116 hicksa@asmsa.org