Welcome to the Department of Computer Science Open House

Dr. Jay Fenwick, Dr. Cindy Norris, and Dr. Rahman Tashakkori

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Patrick Beekman - The Science Lab Project

Jonathan Brotherton - The Beemon Project

Gurney Buchanan - The Beemon Project

Alisha Sprinkle - The Programming Modern Design Project
Degrees and Programs

• Bachelor’s degree in Computer Science
  – about 500 students
  – ABET Accredited (Academic Board for Engineering and Technology)
• Minor in Computer Science (12 hours of 2000+ courses)
• Data Science Certificate
• University and Departmental Honors

• Master’s degree in Computer Science – about 20 students
Accelerated Admission Program (4+1)

• Earn a Bachelor’s degree and a Master’s degree in 5 years
• Senior year
  – Enroll in graduate courses that will count toward both degrees
• One extra year to complete Master’s degree
• Eligible students are those who:
  – Have a 3.2 cumulative GPA and senior standing (90 completed hours)
Faculty and Staff

Chair: Dr. Rahman Tashakkori (tashakkorir@appstate.edu)
Office Manager: Mara Macchia (macchiame@appstate.edu)
• 9 tenured faculty
• 4 junior faculty
• 3 lecturers
• post-doctoral researcher

Research areas: apiary studies, computer science theory, data science, visualization, block chain technology, mobile app development, GPGPU, software engineering, educational innovations, bioinformatics, algorithms, embedded systems, networking, cybersecurity
• Computer Science, BS
  – 44 hours of General Education
  – 41 hours of Computer Science
    • theory, systems, programming, writing in the discipline, capstone course or honors thesis
  – 12 hours of Computer Science electives
  – 18 hours of Mathematics
    • discrete mathematics, calculus 1 and 2, linear algebra, statistics
  – 8-10 hours of a science sequence
    • astronomy, biology, chemistry, geology, or physics
Computer Science Electives

- Mobile Device Programming
- Server and Client Side Web Programming
- System Administration and Security
- Artificial Intelligence
- Data Communication and Networking
- Human Computer Interfaces
- Embedded Systems
- Cybersecurity
- Machine Learning
- Neural Networks
- Computer Graphics
- Digital Image Processing
- Operating Systems
- Bioinformatics
- Advanced Theory
Computer Science

• Computer Science is hard. Be prepared to work hard.
• Computer Science is worth it. Be prepared to work for it.
• There is help and lots of resources.
• Small class sizes mean you get to know your professors and can ask questions.
• Study Halls
  – 6:00pm – 9:00pm Sunday through Wednesday
Opportunities

Clubs
- Women in Computer Science
- Video Game Development Club
- Linux
- Appalachian Society for Computing, Informatics, and Innovation (ASCII)
- Competitive Programming

Internships
- IBM
- Microsoft
- Google
- Lowe’s
- Fidelity
- Sunrise
- ECRS
- ...

Women in Computer Science Club members - Recipients of ECRS $500 scholarship awards
Jenny Ly, Kellie Brown, Melanie Lambert, Janet Brock, and Anna Low
Competitive Programming

The "Mountaineers Coding" team placed 22nd out of the 154 teams at the 2019 Mid-Atlantic Regional USA Contest (4th at the Duke University site where they competed)

The 2019 Programming Contest team and their coaches - Professor Waters, William Sease, Matthew Swanson, Professor Mohan, and Daniel Jeffries
S-STEM and ECRS Scholarship Programs

- $6000.00 annually for financially needy and academically talented freshmen intending on majoring in chemistry, computer science, geology, mathematics, or physics
- Weekly seminars
- Study groups for core classes
- Mentoring and Tutoring
- Leadership workshop series
- Peer-mentoring
- Resume workshops and internship/job search
- Community building
Lancy Murray, the CS 1440 programming design first place winner and Dr. Hamza

Tyler Young, the CS 1440 programming design first place winner and Dr. Johann
Where our students have gone after graduation

• Big companies: Apple, Amazon, Fidelity, Google, IBM, Microsoft, SAS, Wells Fargo, CGI, Duke Energy, ...

• Smaller companies: Inmar, Premier, Sunrise Technologies, Camelot, T-Metrics, ...

• Local: ASU, ECRS, Samaritan’s Purse, and Jackson Summer & Associates, ...

• Graduate Schools: Clemson, UNC Chapel Hill, NC State, Iowa State, Indiana State, Florida State, ...

Many of our graduates work in Charlotte, RTP, Piedmont Triad, and Silicon Valley
What our students do after graduation

• Sectors - banking, finance, healthcare, transportation, software services, web, energy, security, e-commerce, avionics, ....

• Job titles - analyst, programmer, software engineer, developer, network administrator, database administrator, system administrator, software architecture, ....

• starting salaries - average $60-70K; as high as $120K

Many of our graduates work in Charlotte, RTP, Piedmont Triad, and Silicon Valley
Professor Frank Barry’s students at the cookout at his farm
First Semester for Calculus Ready Students

- MAT 1110: Calculus 1 (4 hrs)
- CS 1440: Computer Science 1 (4 hrs)
- CS 1100: Discrete Math (3 hrs)
- General Education:
  - First year seminar (3 hrs)
  - Physical Education (1 hr)
- Total of 15 semester hours
Options for Students who are not Calculus Ready

- MAT 1025: Precalculus (4 hrs)
- First course of science sequence (4 hrs)
  - excluding PHY 1150
- General Education courses (3 hrs each)
- Physical Education (1 hr)
- CS 2435: Scientific Programming (Does not count toward major requirements) (3 hrs)
- Note: cannot take CS 1100 or CS 1440
For more information ....

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