College of Science and Mathematics

B.A. in Computing and Informatics

Contact

Department of Computer Science
Robinson Hall
856-256-4805
www.rowan.edu/computerscience

Curriculum

The curriculum for the major is divided into three major areas: **Foundation** courses, **Basic Core Areas**, and Computing and Informatics **Electives**.

The Foundation courses represent a sequence of courses primarily focused on programming skills across a variety of infrastructure platforms. Introductory courses will expose students to programming concepts in two different languages (e.g.,, Java, C++ or Python). Students will then master more complex programming via the completion of two Advanced Programming Workshops.

Students will also be required to complete the Basic Core Areas which cover data structures, database systems, computer networks, and web development.

The final core course is a capstone experience which combines all previous core competencies into a semester-long project which also introduces software engineering and project management principles. This capstone will give the BA students vital hands-on experience to the entire systems development lifecycle that will prepare graduates for technology projects with future employers.

Finally, students must take four Computing and Informatics Electives from a list of technical courses offered by the Computer Science, MIS and other departments which provide coverage of advanced topics. Currently, two **specializations** are in place – one in Mobile Devices and the other in DevOps. The latter specialization is designed to prepare students to develop integration software which bridges applications and infrastructure.

For more information about the B.A. program, please contact:
Computer Science Department
856-256-4805
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Rowan University™

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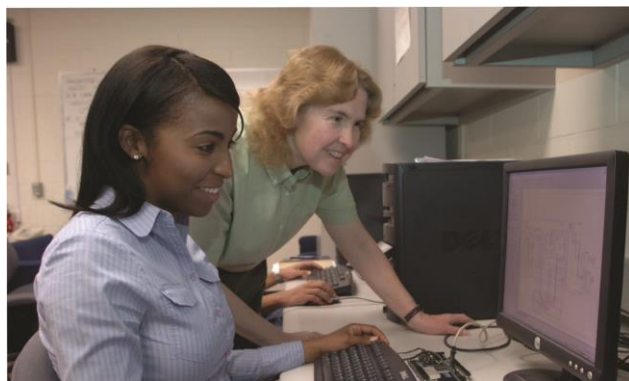www.rowan.edu/computerscience

About this program

The Bachelor of Arts in Computing and Informatics is a new degree designed for students who are interested in pursuing careers in information technology which requires a solid understanding of the principles of computing – but not the underpinnings of computer science theory and mathematics. Such careers include, but are not limited to:

- Programmers
- Infrastructure Administrators
- Support Technicians
  (e.g., Help Desk support)
- Technical Application Trainers
- Software QA / Testing Engineers
- Computer Service Coordinators
- Deployment Technicians
  (e.g., end-user support for system releases)
- Technical Documentation Specialists

How does this program differ from the B.S. in Computer Science?

In comparison to the existing B.S. in Computer Science, this degree program will require less computer science, general science and mathematics coursework. It will have a greater emphasis on computer programming and infrastructure platforms. To prepare BA graduates for the careers listed above, the program will provide a background in applications development (particularly mobile and web applications), project management, database implementations, general principles of computer networks and infrastructure, as well as information security.

Since the B.A. degree requires fewer courses in the major and allows for an increased number of electives, students could further customize the degree by careful course selection. For instance, B.A. students could obtain a minor in MIS, Business Administration, Geographic Information Systems, or Entrepreneurship – or take several courses in a specific interest area. With the help of our faculty advisors, we can help students obtain the experience that is customized to their interests and abilities.

Student Learning Outcomes

Upon program completion, students will:
- be able to produce robust and correct application code;
- be able to create and deploy solutions across multiple operating systems;
- be able to plan and distribute tasks fairly in a group setting;
- know how to use techniques to manage projects;
- be proficient at communicating within a team – and externally to stakeholders;
- demonstrate effective oral and written communication skills;
- be able to implement sophisticated techniques in a particular domain;
- be literate in emerging areas of computing and informatics;
- demonstrate an in-depth understanding of legal, security and social issues in technology;
- be able to effectively decompose a problem and deliver a complete solution in accordance with software engineering principles.