

# ***Biotechnology and Molecular Bioscience***

**Workshop leader:** Professor Michael Savka

Biotechnology involves manipulating the genetic make-up or DNA of organisms in innovative ways to make products that are useful to humans. The extraordinarily powerful tools of biotechnology can produce new and potent drugs and vaccines to treat human disease. Biotechnology can be used to make industrial processes more environmentally friendly and sustainable, to remediate toxic waste sites and spills, and to make products, such as green packaging containers, that are rapidly biodegradable. Biotechnology is at the center of bioenergy development. Biotechnology can help to alleviate hunger and famine by creating new crops that are disease resistant, tolerant of harsh conditions and more nutritious. Two of the newest branches of biotechnology are robotics and whole-genome sequencing, which uses sophisticated equipment hardware and software to analyze data and drive new discoveries that are leading scientists to a deeper understanding of life, health, disease, bioenergy and the environment.

## ***Biomedical Sciences***

**Workshop leader:** Dr. Douglas Merrill

The Biomedical Sciences course of study consists of a Life Sciences Core combined with a broad range of flexible elective options. The Life Sciences Core is designed to provide students with a strong grounding in mathematics and science with a complement of liberal arts in preparation for a particular career path, e.g., for entry into medical/dental school, into graduate studies, or directly into a research position in an applied area of biomedical science.

## ***Hospitality and Tourism Management***

**Workshop leader:** Dr. Carol Whitlock

Hospitality and Tourism Management is a business discipline that encompasses the sectors of lodging, special events, food and beverage, tourism, and food marketing and distribution. The hospitality industries specialize in customer service, and a focus on serving the needs of the customer can be applied in a wide variety of businesses today. Travel, lodging, and food companies are located in many countries, and jobs are available around the world. People who are creative and who like interacting with others in fun and friendly environments enjoy careers in the hospitality industries.

## **Cyber Security**

Gain the essential knowledge and expertise in network security and forensics needed for cybersecurity in enterprise environments.

In this Cybersecurity MicroMasters® program, you will learn:

- Fundamentals of networks
- Systems administration
- How to protect computer networks and other systems by mitigating vulnerabilities and monitoring intrusions
- How to perform digital forensic analysis of cybercrime by gathering information on the nature and extent of the attack for presentation in a court of law, as well as assessing the extent of the damage to an organization
- Techniques of risk analysis
- Risk assessment and vulnerability assessment

The MicroMasters program capstone experience for verified learners entails practical demonstration of these skills.

After earning the RITx Cybersecurity MicroMasters program certificate, students are eligible to apply for admission to RIT's [Advanced Certificate in Cybersecurity](#), the [Master of Science degree in Computing Security](#) programs through the standard admission process. If accepted into the program, students who have successfully completed the verified MicroMasters program courses will be awarded nine credit hours towards their degree requirements.

## Digital Humanities

Digital Humanities and Social Sciences (DHSS) is a dynamic and interdisciplinary field of research dedicated to furthering the possibilities of computing for humanities and social sciences subjects including anthropology, art, communication, history, literature, linguistics, philosophy, and political science, among others.

DHSS brings together faculty from three colleges and eight units for collaborative teaching and research. Our projects reside at the intersection of computing and design with humanities and social science.

DHSS also fosters critical analysis of digital culture, social media, and digital games. Team-based projects and public engagement are DHSS hallmarks.

DHSS graduates are prepared for a variety of careers, spanning cultural heritage, libraries and archives, marketing and communications, entertainment, and technology. Careers may include: Digital Project Management, Digital Communication Director, Digital Content & Social Media Manager, Digital Art Director, Interactive Project Manager, Editor, Web and Emerging Media, Social Media Community Manager, Digital Marketing Specialist

## The College of Engineering Technology (CET)

CET prepares students to become successful professionals within a global society. CET leverages this through its faculty's broad academic and industrial expertise, responsiveness to industry needs and global opportunities, student-centered teaching, proactive and adaptive service systems, and leadership in global outreach development.

We embrace and encourage innovative curricula, teaching techniques, student discovery, entrepreneurial activities, and international outreach. We pursue partnerships with industry, government, education, and alumni. We promote a student-focused environment through personal and professional interactions among students, faculty, and staff. We recognize and embrace individual diversity.

Whether you work for a large industrial company, in a world-renowned engineering facility, or at a small consulting firm, you'll get a good idea of what to expect in your career after graduation through our co-op program.

CET students have a unique opportunity to study at RIT exchange partner university, Dublin Institute of Technology (DIT). DIT is internationally ranked for the quality of its teaching and is located in Dublin, Ireland.

Engineering programs include: civil, computer, electrical, mechanical, packaging sciences, media arts, manufacturing, and others.