The College of Integrated Science and Technology encompasses programs of professional education whose common denominator is the use of science and technology to enhance the quality of life in the modern world.

Over the past several decades, remarkable developments have occurred in science and technology, altering our lives and our society. Continued development of human civilization, as well as of the quality of life in American society, depend on the integration of scientific knowledge, on technical capabilities, on the application of ethical principles, and on an understanding and appreciation of cultural commonalities and differences. Consequently, there is a need for individuals who understand the importance of discipline specialization, as well as cross-disciplinary connections, and also the integration of knowledge for practical application. These individuals must have the flexibility to be able to operate in an environment of uncertainty and complexity, the drive to seize such opportunities as may arise, and the vision and creativity to create new opportunities as needed. Our faculty is dedicated to producing graduates with a scientific knowledge base and a matching set of interpersonal, organizational and technical skills. To this end the faculty not only educates our students, but also serves as a source of inspiration and as role models.

The college places importance on carrying out its role within the community of Academic Affairs, working collaboratively with other colleges, and working in support of division-wide programs and priorities.

Mission Statement
The primary mission of the college is to educate students in the areas of the applied sciences, health, technology and human services, as well as to prepare them to enter professions or to undertake advanced study.

Goals
The goals of the College of Integrated Science and Technology are:
- to develop and sustain a community of faculty that pursues high-quality instructional, scholarly and service opportunities.
- to foster, among both faculty and students, life-long professional development, personal growth, and commitment to ethical behavior.
- to contribute to the betterment of society at local, regional, national and global levels.
- to promote and support a collaborative, interdisciplinary perspective.
- to emphasize innovation.
- to promote the wise use of appropriate technology and the application of scientific principles to everyday life.
- to encourage partnerships with industry, government, public and private agencies, and professional organizations.

Majors and Programs
Students may select from a variety of majors, minors, programs, concentrations and tracks that are available through the eight departments that comprise the College of Integrated Science and Technology. Programs offered include the following:

Majors and Programs
- Athletic Training
- Communication Sciences and Disorders
- Computer Science
- Dietetics
- Exercise Science and Leadership
- Geographic Science
- Health Assessment and Promotion
- Health Sciences
- Health Studies
- Health Services Administration
- Integrated Science and Technology
- Kinesiology
- Nursing
- Psychology
- Public Health Education
- Recreation Studies/Management
- Social Work
- Sports Management
Minors

- Coaching
- Communication Sciences and Disorders
- Computer Science
- Environmental Information Systems
- Exercise Leadership
- Family Studies
- Geography
- Gerontology
- Health Information Systems
- Human Services
- Integrated Science and Technology
- Kinesiology
- Materials Science
- Nutrition
- Public Health
- Recreation Management
- Substance Abuse Intervention
- Telecommunications
- Urban and Regional Studies

**Interdisciplinary Programs, Outreach Programs, Partnerships and Academic Centers**

The College of Integrated Science and Technology places a high value on partnerships with the community. These partnerships are integral to our academic programs and assist us in meeting our responsibility to participate in efforts to enhance the well being of our community. We value the impact of experiential activities on the enrichment of student learning. Many of the programs within the college are interdisciplinary in nature, reflect our commitment and support the mission of the college. Further details about these interdisciplinary programs are provided in the “Interdisciplinary Programs” section of the catalog.

**Institute for Innovation in Health and Human Services (IIHHS)**

*Vida Huber, Director*

Web site: http://www.iihhs.jmu.edu/

The mission of the Institute for Innovation in Health and Human Services is to promote collaboration and cross-disciplinary activities and to serve as a catalyst for developing new programs and initiatives in health and human services that are responsive to societal trends, community needs and the unique strengths of the health and human service programs at JMU. The Institute seeks to promote and facilitate the integration of teaching, learning, research and service, and to forge creative alliances and relationships with agencies, organizations, and professionals within the broader community and region in order to enhance both the educational experiences of students and the health and human services provided to our citizens. The Institute is university-wide in terms of its scope of activities. The specific interdisciplinary health and human services programs, centers and partnership programs related to the IIHHS are listed below and described in more detail in the “Interdisciplinary Programs” section of the catalog on Page 91.

- Acting Out: Teen Theatre Programs
- Adult Health and Development Program (AHDP)
- Alpha Epsilon Delta (AED)
- Attention and Learning Disabilities Center (ALDC)
- Alzheimer's Association
- Bio & Health Informatics Center
- Blue Ridge Area Health Education Center (AHEC) at James Madison University
- Community Health Interpreter Service
- Counseling and Psychological Services (CAPS)
- Elderhostel
- Generations Together at JMU
- Healthy Families Page County
- Holistic Health Resource Center (HHRC)
- JMU Shenandoah Valley Child Development Clinic (CDC)
- Lifelong Learning Institute (LLI)
- Office on Children and Youth (OCY)
Institute For Infrastructure And Information Assurance (IIIA)

Web site: http://www.jmu.edu/research/IIIA/flash_content/homepage2.html

The mission of the Institute is to facilitate development, coordination, integration and funding of activities and capabilities of the academic community to enhance information and critical infrastructure assurance at the national, state and local levels. The Institute thus represents the umbrella entity under which faculty and students from throughout the university come together in addressing these complex and interdisciplinary issues through research, education and outreach. Likewise, the Institute forms strategic partnerships with other educational institutions, government agencies and private sector entities in pursuing its goals.

The mission of the Commonwealth Information Security Center, an affiliate of the Institute, is to advance information security research, technology and practice – in particular, to enable Virginia to become a leading provider and beneficiary of information security services and products.

The Critical Infrastructure Protection Project, a collaborative project of JMU and George Mason University, focuses on important legal, technological, and policy research in creating technological solutions to real-world critical infrastructure problems by bringing together the private, government and higher education sectors.

The Institute also serves as the home for the Colloquium on Information Systems Security Education, an international entity representing higher education, government and the private sector.

Applied Spatial Research Center

Dr. Helmut Kraenzle and Dr. Stephen E. Wright, Co-Directors

Web site: http://www.jmu.edu/cisat/centers.htm

The Applied Spatial Research Center (ASRC) at James Madison University is a multi-disciplinary research and technical outreach facility. With the assistance of JMU faculty and students, the ASRC provides the Shenandoah Valley community with a mechanism for addressing critical research problems that require the integration of cartometrics, geographic information systems, remote sensing, and mathematical modeling for spatial data analysis and regional synthesis.

Recent projects have included classifying and mapping the watershed and landcover of the Shenandoah Valley river basin for The Shenandoah Valley Water 2000 Forum, agricultural mapping in Rockingham and Augusta Counties for the Virginia Department of Conservation and Recreation, and work on the National Park Service’s preliminary planning of the now-funded Shenandoah National Battlefields Historic District (a new National Park).

Center for High Performance Manufacturing

Web site: http://www.eng.vt.edu/chpm

The Center for High Performance Manufacturing helps manufacturing firms become high-performance manufacturers via research and development of enabling tools and technologies and the successful transfer and implementation of these items. The center provides assistance to manufacturing firms striving to maintain competitiveness in the continually evolving global manufacturing and distribution environment. The CHPM labs at JMU focus on rapid prototyping and tooling, materials development, and injection molding. Research at JMU emphasizes synergistically combining these technologies into a flexible molding capability for limited-run production of plastic parts.

Center for Materials Science

Web site: http://www.jmu.edu/materialscience/

The Center for Materials Science offers a minor and concentration in materials science that enhance students’ preparation for employment and advanced study in the rapidly growing materials industry. In these programs, students develop broad interdisciplinary skills and in-depth knowledge in materials science that integrates undergraduate education with basic and applied research.
Mine Action Information Center (MAIC)

Col. Dennis Barlow (Ret.), Director

Web site: http://maic.jmu.edu/

Largely underwritten by the Department of Defense and the Department of State, the MAIC serves as an information clearinghouse for the global humanitarian landmine remediation community. The center uses the expertise of faculty from virtually all disciplines throughout the university to fashion solutions to landmine information challenges. The MAIC also draws on the enthusiasm and capabilities of a large staff of undergraduate students. It has achieved an international reputation for hosting topical conferences, publishing a world-class journal and maintaining the pre-eminent mine action Web site.

Virginia’s Manufacturing Innovation Center (VMIC)

Dr. Mohamed Y. Zarrugh, Executive Director

Web site: http://www.jmu.edu/vmic/

VMIC helps enhance the competitiveness of Virginia’s smaller manufacturers through a high-quality, well-trained workforce, accessible technology and modern business practices. Center participants include many faculty and students from Integrated Science and Technology, Computer Science, and Computer Information Systems/Operations Management in the College of Business. The center partners with many Virginia economic development agencies, companies and community colleges. Current projects target e-business and information systems tools in manufacturing, biomanufacturing, microelectronics fabrication and production management.