

College of Integrated Science and Engineering

Summer Orientation 2019

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What do we do?

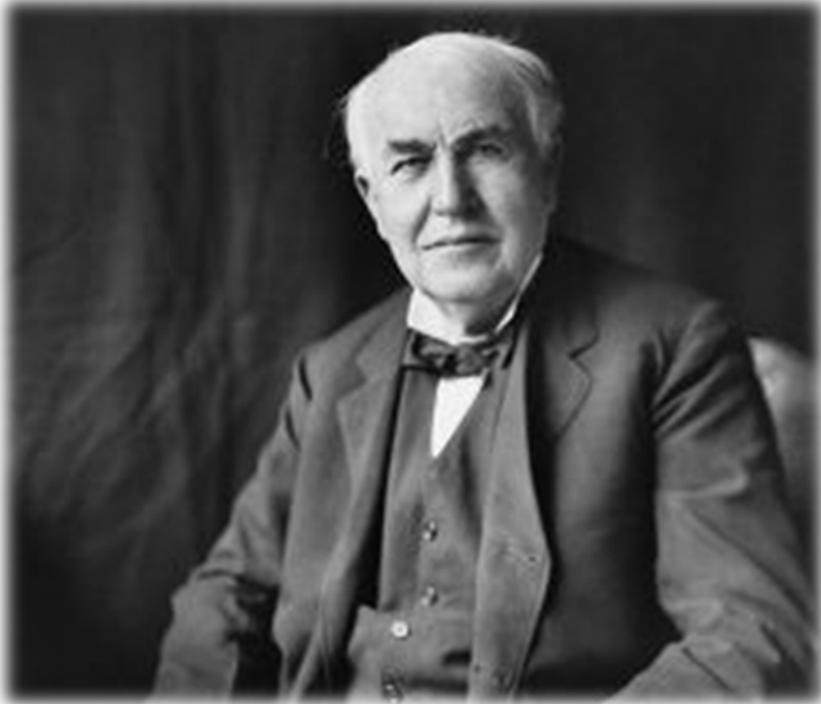
Our programs center on

- **solving problems** that impact the world
- through the **application of science and technology** and
- considering the **social context** in which the problem sits.



We value theoretical knowledge, but we thrive on applying that knowledge.

Who does this sort of work?



What will we demand of you?

- Bring your best effort
- Work with others
- Push yourself beyond your comfort zone
- Make academics your priority



Our programs are challenging...



...because the problems we face are challenging.

But is there still time to have fun? You do the math...

- Time spent in class
 - 15 credit hours
 - 1 hour in-class, 2 hours out of class
- Maintaining yourself
 - Eating: 2 hours a day
 - Hygiene: 1 hour a day
 - Sleep: 8 hours a day
- Transit to and from classes: 1 hour a day
- Free time?

Who runs our college?



CISE majors

- Computer Science
- Engineering
- School of Integrated Sciences
 - Geographic Science
 - Intelligence Analysis
 - Integrated Science and Technology



Choosing majors and minors

- Thanks for starting your JMU journey in CISE
- You can change majors at any time – Let your interests and your strengths guide you
- Some students choose to double-major or add one or more minors
- Plan ahead: prerequisite structures limit flexibility
- Admissions standards
 - Computer Science
 - Engineering
 - Intelligence Analysis

- Anthropology, Archaeology Concentration, B.S.
- Anthropology, B.S.
- Anthropology, Biological Anthropology Concentration, B.S.
- Anthropology, Cultural Anthropology Concentration, B.S.
- Art, Studio, B.S.
- Athletic Training, B.S.
- Biology, B.S.
- Biology, Ecology and Environmental Concentration, B.S.
- Biology, Forest Biology, Dual Degree
- Biology, Microbiology Concentration, B.S.
- Biology, Neuroscience Concentration, B.S.
- Biophysical Chemistry, B.S.
- Biotechnology, B.S.
- Chemistry, American Chemical Society Certified Curriculum in Biochemistry Concentration, B.S.
- Chemistry, American Chemical Society Certified Curriculum in Chemical Education Concentration, B.S.
- Chemistry, American Chemical Society Certified Curriculum in Chemistry Concentration, B.S.
- Chemistry, American Chemical Society Certified Curriculum in Materials Chemistry Concentration, B.S.
- Chemistry, Chemistry/Business Program Concentration, B.S.
- Chemistry, General Program in Chemistry Concentration, B.S.
- Communication Sciences and Disorders, B.S.
- Communication Studies, Advocacy Studies Concentration, B.S.
- Communication Studies, B.S.
- Communication Studies, Cultural Communication Concentration, B.S.
- Communication Studies, Generalist Concentration, B.S.
- Communication Studies, Health Communication Studies Concentration, B.S.
- Communication Studies, Interpersonal Communication Studies Concentration, B.S.
- Communication Studies, Organizational Communication Studies Concentration, B.S.
- Communication Studies, Public Relations Studies Concentration, B.S.
- Computer Science, B.S.
- Dietetics, B.S.
- Economics, B.S.
- Engineering, B.S.
- Geographic Science, Applied Geographic Information Science Concentration, B.S.
- Geographic Science, Custom Concentration, B.S.
- Geographic Science, Environmental Conservation, Sustainability and Development Concentration, B.S.
- Geology, Environmental and Engineering Geology Concentration, B.S.
- Geology, General Geology Concentration, B.S.
- Health Sciences, B.S.
- Health Services Administration, B.S.
- Hospitality Management, B.S.
- Independent Scholars, B.S.
- Individualized Studies, B.S.
- Industrial Design, B.S.
- Integrated Science and Technology, B.S.
- Intelligence Analysis, B.S.
- Interdisciplinary Liberal Studies for Inclusive Early Childhood Education, Elementary Education and Special Education Licensure, B.S.
- Interdisciplinary Liberal Studies for Middle Education Licensure, B.S.
- Justice Studies, Crime and Criminology Track, B.S.
- Justice Studies, Global Justice and Policy Track, B.S.
- Justice Studies, Social Justice Engagement Track, B.S.
- Kinesiology, Exercise Science Concentration, B.S.
- Kinesiology, Physical and Health Education Teacher Education Concentration, B.S.
- Mathematics, B.S.
- Mathematics, Computational Sciences Concentration, B.S.
- Media Arts and Design, Creative Advertising Concentration, B.S.
- Media Arts and Design, Digital Video and Cinema Concentration, B.S.
- Media Arts and Design, Interactive Design Concentration, B.S.
- Media Arts and Design, Journalism Concentration, B.S.
- Philosophy and Religion, Interdisciplinary Philosophy Concentration, B.S.
- Philosophy and Religion, Philosophy Concentration, B.S.
- Physics, Applied Physics Concentration, B.S.
- Physics, Fundamental Studies Concentration, B.S.
- Physics, Individual Option Concentration, B.S.
- Physics, Multidisciplinary Concentration: Secondary Education Track, B.S.
- Physics, Physics and Engineering Combined Program Concentration, B.S.
- Psychology, B.S.
- Psychology, Behavior Analysis Concentration, B.S.
- Public Policy and Administration, Public Management Concentration, B.S.
- Public Policy and Administration, Public Policy Concentration, B.S.
- Quantitative Finance Major with a Minor in Economics and Mathematics, B.S.
- Quantitative Finance/Mathematics Double Major, B.S.
- Sociology, B.S.
- Sociology, Communities, Inequalities and Public Policy, B.S.
- Sociology, Environment, Technologies and Innovations Concentration, B.S.
- Sociology, Markets and Cultures Concentration, B.S.
- Sociology, Political and Global Analysis Concentration, B.S.
- Sport and Recreation Management, B.S.
- Statistics, B.S.
- Writing, Rhetoric and Technical Communication, Technical and Scientific Communication Concentration, B.S.
- Writing, Rhetoric and Technical Communication, Writing and Rhetoric Concentration, B.S.

Activity

What you can expect in CISE

- Small class sizes, especially in junior and senior years
- State-of-the-art equipment and facilities
- A passionate commitment to outstanding undergraduate education
- Mixture of instructional styles
 - Active learning
 - Hands-on activities
 - Traditional lectures
 - Team-based learning



Opportunities: Study Abroad

- Australia – ISAT/Engineering
- Costa Rica – ISAT/Engineering
- Germany – GS/ISAT/CS/Engineering
- Haiti – GS
- East Africa – GS/ISAT/Engineering
- Malta – GS/ISAT/Engineering
- Thailand - GS
- UK (London) – GS
- UK (London & Edinburgh) - CS
- Silicon Valley – Engineering



Opportunities: Undergraduate Research

- Engineering, Integrated Science and Technology (ISAT), and Intelligence Analysis all require capstone research projects
- Numerous opportunities to work with faculty on research projects
- Don't be afraid to ask instructors about opportunities for research



Opportunities: Internships

- All programs strongly encourage internships and help students pursue internship opportunities in a variety of ways
- Internships may be paid, unpaid, or for course credit
- Internships in 14 states and 4 countries
- CISE Career and Internship Fair



What do CISE graduates do?

- Graduate School
- Jobs with Businesses or Government
- Start-up Companies
- Service Work – Peace Corps, Teach for America, etc.
- JMU Career and Academic Planning
- About 94% of CISE graduates are working or in grad school within six months of graduation



Where do CISE graduates go?

CS	ENGR	GS	IA	ISAT
IBM	Northrop	Booz-Allen	CIA	Booz Allen
NSA	Grumman	Hamilton	DIA	Hamilton
SAIC	Capital One	EPA	NGA	DOE
Northrop	Deloitte	NGA	DEA	EPA
Grumman	Volvo	National Park	U.S. Air Force	IBM
Deloitte	Powertrain	Service	Northrop	Accenture
Bank of	DCO Energy	SAIC	Grumman	Merck
America	LLC	USGS	Booz Allen	Northrop
DHS	Advanced	Dewberry	Hamilton	Grumman
FBI	Engineering,		Deloitte	Novozymes
Accenture	Inc.		JP Morgan	Biologicals
	Skanska		Chase	

Questions?