

DIGITAL SCIENCES



Excellence in Action

SCHOOL OF DIGITAL SCIENCES

The School of Digital Sciences is a cutting-edge new interdisciplinary school designed to train tomorrow's digital leaders. Integrating elements of computer science, computer information systems, computer technology, library information science, visual communication design, journalism, communication studies and instructional technology, the school fosters a broad exposure to digital technologies as used by a wide range of professions and organizations. The school offers Bachelor of Science and Bachelor of Arts degrees, a Master of Digital Sciences degree, an undergraduate minor and a graduate Enterprise Architecture certificate.

MASTER OF DIGITAL SCIENCES

The **Master of Digital Sciences** degree is a professional master's degree for graduates from a variety of backgrounds. A breadth requirement introduces students to digital technologies outside their undergraduate field of study, and five degree concentrations provide deeper knowledge in one or more domains. A bachelor's degree in Digital Sciences is not required for admission.

For graduates from computer science, computer information systems, technology, or other areas close to digital sciences, the degree can augment students' undergraduate coursework with additional breadth and some focused depth in one area outside their own discipline. For example, a computer science graduate could select the Digital Systems Management and Consulting concentration to study the management of information systems. A computer information systems graduate could select the Enterprise Architecture concentration to learn how to align the use of technology to business needs.

For graduates from the sciences, humanities or other areas less closely aligned with digital sciences, the Master of Digital Sciences gives broad exposure to the field and a focused introduction to one area. For example, a physics graduate could select the Digital Systems Software Development concentration to study programming, algorithms and software engineering. A psychology or education graduate could select the Digital Science Cognition and Communication concentration to study simulation games, virtual reality and managing technological change.

MASTER OF DIGITAL SCIENCES DEGREE REQUIREMENTS

The Master of Digital Sciences degree program requires a minimum of 32 credit hours of graduate-level coursework including 9-10 credits of major requirements, 9-10 credits of concentration requirements, 7-8 credits of approved electives in the digital sciences or related programs, and 6 credits of Thesis or Capstone plus electives.

All Digital Sciences students must complete three of the following five courses to satisfy their major program requirements:

- DSCI 61010 Enterprise Architecture
- CS 61002 Algorithms and Programming I
- ITEC 67403 Instructional Design
- MIS 64042 Globalization and Technology Strategy
- TECH 56350 Network Management and Design Technology

Students then add depth in a specific domain through one of these concentrations:

- Enterprise Architecture
- Digital Systems Software Development
- Digital Systems Telecommunication Networks
- Digital Systems Management and Consulting
- Digital Science Cognition and Communication

Note that the required courses for the Enterprise Architecture and Digital Science Cognition and Communication concentrations are generally delivered in an online format, while the required courses for the Digital Systems Management and Consulting, Digital Systems Software Development and Digital Systems Telecommunication Networks concentrations are generally delivered in an in-classroom format.

Both a Thesis and Nonthesis option are available. The Thesis option includes a 6-credit Thesis, while the Nonthesis option includes a 3-credit Capstone course and 3 additional credits of advisor-approved electives.

CAREER OPPORTUNITIES

According to the U.S. Bureau of Labor Statistics, computer-related occupations will grow twice as fast as the average for all occupations, and will account for more than 750,000 new jobs nationally between 2010 and 2020. Computing occupations are projected to be responsible for nearly 62 percent of all job growth in science and engineering between 2010 and 2020.

Depending on a student's undergraduate background, the digital sciences program can prepare graduates for entry-level careers such as computer system analyst, computer system architect, enterprise architect, information system project manager, information technology coordinator, instructional coordinator, instruction technologist, scientific programmer, software project manager, technology architect, telecommunication specialist or website developer.

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ENTERPRISE ARCHITECTURE CONCENTRATION

Kent State University is the first university in the country to offer both bachelor's and master's degrees with a concentration in enterprise architecture. The School of Digital Sciences also offers an 18-credit Post-Baccalaureate Certificate in Enterprise Architecture. The certificate program is intended for students who do not have the time or funds to invest in a 32-credit master's program, or who already have a master's degree, or whose work environment values completion of a certificate program.

The Enterprise Architecture concentration focuses on assisting organizations to review and improve their investments in technology and to ensure that their digital information, applications and technology are fully aligned with business goals and objectives. This concentration can assist graduates to prepare for a career as a computer system architect, enterprise architect, information architect or solution architect.

The required courses for this concentration are generally delivered in an online format.

DIGITAL SYSTEMS SOFTWARE DEVELOPMENT CONCENTRATION

The Digital Systems Software Development concentration focuses on the software needs of an organization and the coordination of the design, maintenance and expansion of a software system to meet those needs. This concentration can assist graduates to prepare for a career as an application architect, software project manager, scientific programmer or website developer.

The required courses for this concentration are generally delivered in an in-classroom format.

DIGITAL SYSTEMS TELECOMMUNICATION NETWORKS CONCENTRATION

The Digital Systems Telecommunication Networks concentration focuses on the communication needs of an organization and

the design of a telecommunication and network infrastructure to meet those needs. This concentration can assist graduates to prepare for a career as a technology architect, network system analyst, data communication analyst or telecommunications specialist.

The required courses for this concentration are generally delivered in an in-classroom format.

DIGITAL SYSTEMS MANAGEMENT AND CONSULTING CONCENTRATION

The Digital Systems Management and Consulting concentration focuses on reviewing an organization's business priorities, identifying and solving complex problems and designing and re-engineering critical processes. This concentration can assist graduates to prepare for a career as a management analyst, information systems project manager, information technology coordinator or technology consultant.

The required courses for this concentration are generally delivered in an in-classroom format, although some courses may also be delivered in an online format occasionally.

DIGITAL SCIENCE COGNITION AND COMMUNICATION CONCENTRATION

The Digital Science Cognition and Communication concentration focuses on the learning, teaching, communication and training needs of an organization and the hardware and software systems that must be designed to meet those needs. This concentration can assist graduates to prepare for a career as an instructional technologist, instructional coordinator, information technology trainer or user interface specialist.

The required courses for this concentration are generally delivered in an online format.

COMBINED BACHELOR'S / MASTER'S PROGRAM

Bachelor's degree students at Kent State with an outstanding undergraduate record may be eligible for the combined bachelor's/master's

program. Under this program, up to 12 credit hours of graduate coursework can be used to satisfy program requirements for both degrees.

ADMISSION REQUIREMENTS

Applicants for the Master of Digital Sciences degree are expected to have an undergraduate grade point average (GPA) of at least 3.0 on a 4.0 point scale. Applicants with a lower GPA will be considered for conditional admission. The GRE is not required, but if taken will be considered in the admission process.

Applicants must submit official transcript(s), current résumé, three letters of recommendation, a statement of goals and objectives for pursuing this degree and optionally a statement of plans for electives. International applicants must submit evidence of proficiency in the English language, usually through the TOEFL, MELAB or IELTS.

School of Digital Sciences

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