## **Programs**

## **Degree Programs Offered through Distance Education**

## College of Agriculture and Life Sciences

The College of Agriculture and Life Sciences Distance Education at Iowa State University provides the flexibility to enhance your career through online learning. Online courses and graduate programs allow you to remain at your present job and location while continuing your education and advancing in your field. You learn at a premier university from the most respected professors in their field through web-based interaction, streaming media or CD-ROM.

For more information contact College of Agriculture and Life Sciences distance education staff by email at agdehelp@iastate.edu or call (515)294-7656 or (800) 747-4478.

### **Master of Agriculture**

via Web-based interaction and streaming media

The Master of Agriculture with a major in Professional Agriculture is the oldest online degree program in the College of Agriculture and Life Sciences. The goal of this program is to prepare individuals for proactive roles in addressing and responding to personal, professional, and societal issues and challenges in a changing food, agriculture and natural resources system through education and outreach in public and private agencies, and through training and development in business and industry. The intent of the program is to enable individuals to grow and develop as professionals, positioning themselves for emerging opportunities within or outside of their current employment.

This degree is designed primarily for the part-time, off-campus student. Most of the courses are offered via distance education, but students are allowed to take classes on campus. Specialized workshops and short courses are offered on campus during the summer months.

Students are accepted from any part of the United States and Canada. Call (800) 747-4478 to learn more.

For more information contact:

Greg Miller, Professor & Director of Graduate Education

201 Curtiss Hall, Iowa State University, Ames, Iowa 50011

(515) 294-2583 or

e-mail: gsmiller@iastate.edu

## Master of Science in Agricultural Education

via Web-based interaction and streaming media

The Masters of Science in Agricultural Education (online) is a program that can be completed entirely at a distance as there are no required on-campus courses or meetings. The program is designed for agriculture teachers in secondary and post-secondary settings, extension professionals, educators in public and private settings, and agricultural communicators. The flexibility of the program makes it possible for working professionals to obtain a master's while continuing to meet personal and professional responsibilities.

The curriculum is 30 semester hours and is flexible allowing you to create a program best suited to your needs, interests, and aspirations. You may choose to earn a specialization in agricultural extension education. Fifteen credits of required courses include: Foundations of Agricultural Education (AgEdS 550), Program Development and Evaluation in Agricultural and Extension Education (AgEdS 524), Introduction to Learning Theory in Agricultural Education (AgEdS 533), Instructional Methods for Adult and Higher Education in Agricultura and Natural Resources (AgEdS 520), and Introduction to Research in Agricultural Education (AgEdS 510). The curriculum also includes 13 credits of electives, 2 credits of creative component, and a final oral examination. Up to 8 credits may be transferred from another university. A thesis option is available if you wish to pursue a Ph.D. or a research-oriented career.

Students are accepted from any part of the United States and Canada. Call (800) 747-4478 to learn more about the program.

For more information contact:

Greg Miller, Professor & Director of Graduate Education

Department of Agricultural Education and Studies

201Curtiss Hall, Iowa State University, Ames, Iowa 50011

(515) 294-2583 or

e-mail: gsmiller@iastate.edu

### Master of Science in Agronomy

via Web-based interaction, streaming media or CD-ROM

Designed for professionals who are working in industry and government. The degree ensures you have an advanced knowledge of agronomic systems and superior problem-solving skills. The program emphasizes practical, professional, and technical skills involved in crop management, soil and water management, and integrated pest management.

The curriculum consists of 12 courses plus a one-credit practicum and a three-credit creative component, for a total of 40 credits. The practicum is the only course that requires attendance on campus—three or four days one summer. The course prerequisites for admission to the program are limited to fundamental agronomy courses, recognizing that many potential students will not have majored in agronomy as undergraduates.

Generally, students who have completed a degree from a College of Agriculture and Life Sciences will meet the requirements. Call (866) MSAGRON (672-4766) to learn more about the program.

For more information contact:

Dawn Miller, Department of Agronomy

2206 Agronomy, Iowa State University, Ames, Iowa 50011

(515) 294-2999 or e-mail: msagron@iastate.edu

### Master of Science in Plant Breeding

via Web-based interaction, streaming media or CD-ROM

Professionals who would like to advance their careers now have access to the world-renowned plant breeding program at lowa State University without becoming a resident on-campus student. The Master of Science in Plant Breeding provides the same rigorous curriculum as the resident program, including access to plant breeding faculty within the Department of Agronomy.

Students completing the program will understand not only the fundamentals of plant breeding, but also gain knowledge of advanced concepts such as genomic selection and the challenges facing plant breeders in our global society.

The curriculum consists of 12 courses plus a one-credit practicum and a three-credit creative component, for a total of 40 credits. The one-credit practicum is the only course that requires attendance on campus-four days during one summer. Generally, students who have completed a degree from a College of Agriculture will meet the requirements.

For more information contact:

Dawn Miller, Department of Agronomy

2206 Agronomy, Iowa State University, Ames, Iowa 50011

(515) 294-2999 or e-mail: msagron@iastate.edu

## **College of Business**

## Master of Business Administration (Face-to-Face in Des Moines)

Students progress through the core curriculum in a cohort, allowing camaraderie with colleagues from a variety of businesses and industries.

The program is 48 credits. Five semesters of core business classes provide a strong foundation of business knowledge; three semesters of electives allow students to tailor the MBA program to their academic and career goals.

Students may concentrate on a general management MBA or specialize in accounting, finance, information systems, marketing, or supply chain management. A double degree, MBA and Master of Science in Information Systems, is also offered. For more information, send an e-mail to busgrad@iastate.edu or call (515) 294-8118 or (877) 478-4622.

## **College of Engineering**

The mission of Engineering Online Learning (EOL) is to promote and support outstanding online learning experiences for undergraduate students, graduate

students and working professionals. Through EOL, the College of Engineering offers a number of different online courses and programs in engineering, science and technology: graduate degrees, graduate certificates, graduate courses, undergraduate courses, and professional development courses for Professional Development Hours (PDHs) or Continuing Education Units (CEUs). Content is delivered via streaming media accessible to anyone wiht a computer and connection to the internet.

For more information: www.eol.iastate.edu , eol@iastate.edu or call (800) 854-1675.

## Masters Degree Program in Civil Engineering with an Emphasis in Construction Engineering and Management

via streaming media

lowa State's Construction Engineering and Management program has been recognized by The Associated General Contractors of America; one of only five schools in the U.S. to receive such an honor and to be promoted by the AGC. The program focuses on three components that represent the three functional areas of construction engineering and management: management techniques, construction operations, and construction methods. A thesis or non-thesis option my be selected.

For more information contact:

Charles Jahren, Professor

515-294-3829 or cjahren@iastate.edu

### **Computer Engineering Master's Degree**

via streaming media

#### Master of Science

Study topics of emerging research and interest. Areas of emphases include communications and signal processing, computing and networking systems, electric power and energy systems, secure and reliable computing, software systems, and advanced materials and electronics. Each master's program totals 30 graduate credits; a thesis or non-thesis option may be selected.

#### Master of Engineering (coursework only)

The Master of Engineering in Computer Engineering degree is designed to assist all individuals who already have a bachelor's degree in engineering or related areas pursue in-depth study in electrical or computer engineering. With the rapidly changing technological landscape in engineering industries, an advanced degree or continuing education seemingly is becoming increasingly necessary. Our Master of Engineering programs are based on coursework credits only (no thesis or creative component is required).

For more information contact:

Vicky Thorland-Oster, Manager Student Services

515-294-8778 or vlthorl@iastate.edu

## **Electrical Engineering Master's Degree**

via streaming media

#### Master of Science

Study topics of emerging research and interest. Areas of emphases include communications and signal processing, electronic power and energy systems, electromagnetics, microwave, and nondestructive evaluation, microelectronics and photonics, systems and controls, and VLSI. Each master's program totals 30 graduate credits; a thesis or non-thesis option may be selected.

#### Master of Engineering (coursework only)

The Master of Engineering in Electrical Engineering degree is designed to assist all individuals who already have a bachelor's degree in engineering or related areas pursue in-depth study in electrical or computer engineering. With the rapidly changing technological landscape in engineering industries, an advanced degree or continuing education seemingly is becoming increasingly necessary. Our Master of Engineering programs are based on coursework credits only (no thesis or creative component is required).

For more information contact:

Vicky Thorland-Oster, Manager Student Services

515-294-8778 or vlthorl@iastate.edu

### **Industrial Engineering Master's Degree**

via streaming media

#### Master of Science

The industrial engineering program combines engineering and business considerations. Engineers learn advanced concepts, theories, and methods for the design and analysis of complex systems. The program focuses on fundamental issues that relate directly to the economic health of industry; namely productivity, cost, quality, and lead time. Areas of specialization available by distance learning are applied operations research, enterprise informatics, advanced manufacturing, and ergonomics. The degree is 30 credits of coursework.

#### Master of Engineering

Upgrade your industrial engineering skills through professional degree program delivered via online education. Designed to help you raise your engineering knowledge and practice to the next level, this program includes coursework that provides both breadth and depth in the industrial engineering discipline. The Master of Industrial Engineering degree requires 30 credit hours of coursework. You can take up to 3 courses before applying for admission to the program.

For more information contact:

Sarah Ryan, Professor and Director of Graduate Education

515-294-4347 or smryan@iastate.edu

### **Information Assurance Master's Degree**

via streaming media

#### Master of Science

Work is offered for the degree Master of Science with a major in Information Assurance under a cooperative arrangement with various departments including Electrical and Computer Engineering; Computer Science; Political Science; Logistics, Operations, and Management Information Systems; and Mathematics. Students graduating from the major will help to fill the need for well-educated system security specialists in the government, private sector, and academia. The Masters of Science in Information Assurance consists of a total of 30 credit hours, typically with 18 credits from the core set of courses, 6 credits of research for a master's degree with thesis or 3 credits of creative component or the capstone course for a master's degree without thesis. The remaining credits will be taken from a set of elective courses. The Masters of Science degree also requires a final oral exam on your research, creative component, or capstone experience. Students typically are allowed to transfer up to 6 credit hours of non-ISU graduate credit into their degree program.

#### Master of Engineering (coursework only)

The Masters of Engineering in Information Assurance consists of a total of 30 credit hours, typically with 18 credits from the core set of courses, 6 credits of research for a master's degree with thesis or 3 credits of creative component or the capstone course for a master's degree without thesis. The remaining credits will be taken from a set of elective courses.

For more information contact:

Doug Jacobson, Professor

515-294-8307 or dougj@iastate.edu

## **Mechanical Engineering Master's Degree**

via streaming media

#### **Master of Science**

The mechanical engineering graduate program offers internationally acclaimed research programs in biological and nanoscale sciences, clean energy technologies, complex fluid systems, design and manufacturing innovation, and simulation and visualization. A student may apply instrumentation design of experiments, and computational methods to any of these areas. The Mater of Science in Mechanical Engineering consists of 30 graduate credit hours, 8 of which may be transfer credits. Students may choose a thesis or non-thesis (creative component) option.

#### Master of Engineering

To complete the Master of Engineering in the Mechanical Engineering program, you need a minimum of 30 credit hours of coursework and up to 15 credits can be taken outside of Mechanical Engineering.

For more information contact

Pranav Shrotriya, Associate Professor

515-294-9719 or shrotriy@iastate.edu

### **Systems Engineering Master's Degree**

via streaming media

#### Master of Science

The systems engineering program develops the management capabilities needed in today's work environment. Engineers, regardless of undergraduate discipline, develop the analytical abilities needed to design, evaluate, and build complex systems involving many components and demanding specifications. The degree is 30 credits, typically including 24 credits of engineering courses distributed among three broad groups (systems engineering core courses, elective engineering courses, and area of specialization courses), and 6 credits of elective nonengineering courses.

#### **Master of Engineering**

Students must take six graduate credits in the general area of systems engineering. Elective courses include fifteen graduate credits in advanced engineering. These courses are determined by the student and academic adviser to fit the needs of the individual student's program. Elective non-engineering courses include six credits outside of the engineering fields that meet individual educational objectives. These might come from business, economics, computer science, mathematics or statistics, among other areas. One additional 3-credit course will be based on the needs of the individual student's program with guidance from the academic adviser. There is no final oral exam.

For more information contact:

Doug Gemmill, Professor

515-294-8731 or n2ddg@iastate.edu

## College of Human Sciences Master of Education or Science

#### Principal licensure

via a combination of methods at various sites around that state with some work online

Preparation for Leadership (PreLEAD)

A master's program of 36 credits leads to licensing as a PK-12 Principal/ Secondary Education Supervisor. Courses are structured to build leadership skills in organizational processes, in creating a school culture focused on student achievement, and in a variety of interpersonal dimensions. Students are paired with mentors who are practicing administrators, experiencing leadership roles firsthand. For more information, send an e-mail to edldrshp@iastate.edu or call (515) 294-1241.

## **Doctor of Philosophy**

#### Superintendent licensure (Certificate of Advanced Studies)

via a combination of methods at sites in the Ames area with some work online

A post-master's curriculum of 30 credits provides instruction for the PK-12 Superintendent/AEA Director license. The program emphasizes leadership skills for aligning the school system for student achievement, maximizing human resources, achieving results through accountability strategies, and using systems assets to create a culture of learning. Students work with two mentors to experience district leadership roles directly. For more information, send an e-mail to edldrshp@iastate.edu or call (515) 294-1241.

# Master of Education with specialization in curriculum and instructional technology

via blend of online and on campus

Designed to meet the needs of K-12 teachers and other educational practitioners, the three-year program is 32 credits offered in a learning community environment. The program is designed for those who want to earn a master's and are seeking leadership positions for infusing technology into teaching and learning environments. For more information, visit http://ctlt.iastate.edu/~citmed/ or send an e-mail to citmed@iastate.edu.

## Master of Family and Consumer Sciences

The Master of Family and Consumer Sciences comprehensive degree covers a variety of family and consumer sciences subject matter. Students have the flexibility to design a program of study that best meets their professional goals. In lieu of a thesis or creative component, the students prepares a final paper and takes an oral integrative exam. The comprehensive degree requires a minimum of 18-21 credits from two or more family and consumer sciences concentration areas. With electives, the degree program totals 36 credits. For more information, send an e-mail to hsde@iastate.edu or call (877) 891-5349.

## Master of Family and Consumer Sciences with specialization in dietetics

online

The Masters of Family and Consumer Sciences-Dietetics degree program is a 36-credit online program that prepares Registered Dietitians to practice dietetics at an advanced level and/or pursue doctoral study.

The program seeks to develop research skills, stimulate independent thought, and provide up-to-date knowledge in foods, nutrition, and food service/business management. The degree program prepares individuals to integrate and apply the principles from biomedical sciences, human behavior, and management to design and lead effective food and nutrition programs in a variety of settings, including hospitals, businesses, community health and wellness areas.

The program is inter-institutional; after being admitted to one of the participating universities, students take online courses from all the universities. For more information, send an e-mail to hsde@iastate.edu or call (877) 891-5349.

# Master of Family and Consumer Sciences with specialization in family financial planning

online

Financial planners are increasingly in demand as Americans seek help managing their income, assets, and debts. The Masters of Family and Consumer Sciences-Family Financial Planning degree is a structured 42-credit program offered online.

Courses cover financial counseling, personal taxation, insurance, retirement planning, and employee benefits. The non-thesis program is 42-credits. Completing the degree program meets the educational requirements for the Certified Financial Planner™ examination.

The program is inter-institutional; after being admitted to one of the participating universities, students take online courses from all universities. For more information, send an e-mail to hsde@iastate.edu or call (877) 891-5349.

## Master of Family and Consumer Sciences with specialization in gerontology

online

Gerontology is the multidisciplinary study of the aging processes and individuals as they grow from middle age through later life. People enter gerontology from many areas such as social work, nursing, counseling, recreation, public policy, long-term care administration, medicine, architecture, psychology, adult education, and rehabilitation therapy.

The Masters of Family and Consumer Sciences-Gerontology degree program is a 36-credit web-based program designed to prepare professional who are either working directly with older people or are involved in education and research related to the elderly. Topics include adult development, family relations, economics and public policy, environmental considerations, and health and putrition

The program is inter-institutional; after being admitted to one of the participating universities, students take online courses from all the universities. For more information, send an e-mail to hsde@iastate.edu or call (877) 891-5349.

## College of Human Sciences Leadership Academies

via blend of online and several intensive summer weeks on campus

## Doctor of Philosophy in Foodservice and Lodging Management

The DDP program is designed to meet needs of professionals employed in industry, education, and other hospitality-related professions who want to obtain a terminal degree for their career advancement. Students in the program must participate in the DDP program for two consecutive summer sessions on campus (3 weeks each) and enroll in courses delivered via the web during Fall and Spring semesters. Students completing requirements of the program will earn a PhD in Foodservice and Lodging Management.

The doctorate is 72 credits; up to 30 credits may be accepted from a master's degree.

For more information, send an e-mail to amfiore@iastate.edu or call (515) 294-9303.

### College of Liberal Arts and Sciences

In 2008, the College of Liberal Arts and Sciences created the Center for Distance and Online Learning (CDOL) to support distance and online learning, collaboration, research, and creative activity through the blended use of instructional and collaborative technology resources within the College of Liberal Arts and Sciences.

CDOL works with students, faculty and staff across the College of Liberal Arts and Sciences to provide services to support the creation and use of high quality, rigorous online programs and courses. For more information on online learning, contact 515-294-1665 or send an email to lasonline@iastate.edu.

#### **Bachelor of Liberal Studies**

online

The Bachelor of Liberal Studies (BLS) is a general studies degree in the liberal arts. The program is designed for students who have earned at least 60 semester credits and a combined GPA of 2.0 or better. It provides the flexibility to choose courses based on interests and goals. Students complete coursework in three areas of distribution; these areas may be focused in a single discipline or diversified over several disciplines.

The BLS degree is offered with similar requirements by the University of Northern Iowa and University of Iowa, and provides a framework to assemble the educational opportunities locally available. Up to three-fourths of the degree requirements may be transferred from accredited institutions. For more information, send an e-mail to las@iastate.edu or call 515-294-4831.

#### Master of School Mathematics

online

This program, administered by the Department of Mathematics, is designed for secondary mathematics teachers. The degree is built on three objectives: enhanced knowledge of algebra, geometry, calculus, statistics, and discrete mathematics; effective strategies for creating a student-centered classroom emphasizing problem solving; and computing technology in learning and teaching mathematics.

The program requires 32 credits and includes a creative component. For more information, send an e-mail to msm@math.iastate.edu or call (515) 294-0393.

#### Master of Science in Statistics

online

The Department of Statistics offers courses and the degree to employees of companies who sign a letter of agreement with lowa State. The degree is the same as on campus; the program requirements are the same including the written master's exam, creative component, and a final oral exam. For more information, send an e-mail to statistics@iastate.edu or call (515) 294-3440.

## Interdisciplinary – Multiple Colleges Master of Science in Human Computer Interaction

via streaming media

The accelerating integration of technology into every aspect of society will demand professionals trained with information technology skills that are augmented by an understanding of the human user. These skills will be necessary for any individual to remain competitive in the future information technology work force. Only those

individuals with a unique interdisciplinary perspective will be able to successfully understand, utilize, and apply new technological solutions to solve human-centered problems. This degree program was created from the frowing demand from business and industry for a masters program that provides education in the field of Human Computer Interaction. Students in this program will take a total of 30 course credits, with nine of the credits coming from three core courses and three of these credits from a capstone course. Students will be required to come to campus to present the results of their capstone course.

For more information contact:

Pam Shill at 515-294-2089 or pshill@iastate.edu

## **Information Assurance Master's Degree**

via streaming media

#### **Master of Science**

Work is offered for the degree Master of Science with a major in Information Assurance under a cooperative arrangement with various departments including Electrical and Computer Engineering; Computer Science; Political Science; Logistics, Operations, and Management Information Systems; and Mathematics. Students graduating from the major will help to fill the need for well-educated system security specialists in the government, private sector, and academia. The Masters of Science and Information Assurance consists of a total of 30 credit hours, typically with 18 credits from the core set of courses, 6 credits of research for a master's degree with thesis or 3 credits of creative component or the capstone course for a master's degree without thesis. The remaining credits will be taken from a set of elective courses. The Master of Science degree also requires a final oral exam on your research, creative component, or capstone experience. Students typically are allowed transfer up to 6 credit hours of non-ISU graduate credit into their degree program.

#### Master of Engineering (coursework only)

The Masters of Engineering in Information Assurance consists of a total of 30 credit hours, typically with 18 credits from the core set of courses, 6 credits of research for a master's degree with thesis or 3 credits of creative component or the capstone course for a master's degree without thesis. The remaining credit will be taken from a set of elective courses.

For more information contact:

Doug Jacobson, Professor

515-294-8307 or dougj@iastate.edu

# Master of Science in Interdisciplinary Studies, Community Development specialization

via Web-based interaction and streaming media

Global economic restructuring and the devolution of government services have created significant challenges for communities, particularly those in rural areas. This specialization in community development provides the skills, information, and networks to facilitate sustainable and prosperous community change. The program is designed for those seeking a career in community development and practitioners who wish to augment their training.

In 2005 Iowa State joined five other universities to offer a master's in community development. The 36-credit program has three tracks: natural resource management, working with native communities, and building economic capacity.

Coordinated by the College of Agriculture and Life Sciences.

For more information contact:

Cornelia Flora, Professor 107 Curtiss Hall, Iowa State University Ames. Iowa 50011

(515) 294-1329 or e-mail: cflora@iastate.edu

## **Graduate Program in Seed Technology and Business**

via Web-based interaction

The Graduate Program in Seed Technology and Business has been designed specifically to meet the needs of working seed sector professionals in industry and government. The STB program emphasizes the development of superior problemsolving and analytic skills by providing up-to-date seed science and technology instruction along with essential courses in business management in a rigorous, integrated curriculum.

The Master of Science curriculum consists of fifteen courses that are developed and delivered by full-time faculty members from Iowa State University and other U.S. universities. Courses are offered by eight departments in the Colleges of Business and Agriculture and Life Sciences: Accounting; Agronomy; Finance; Horticulture; Supply Chain and Information Systems; Management; Marketing; and Plant Pathology and Microbiology. One or two courses are offered per semester, including summer semesters.

A creative component is also required for the Master of Science degree. Students will complete the creative component under the guidance of their Program of Study Committee. In many cases, the creative component topic will be associated with the student's work. Students are able to complete the STB program in as little as ten semesters.

The program also offers graduate certificates in seed science and technology and in seed business management.

Coordinated by the College of Agriculture and Life Sciences.

For more information, please contact us at seedgrad@iastate.edu or see http://www.seedgrad.iastate.edu.