

# IOWA

## Programs in the Health Sciences

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Iowa's colleges of medicine, nursing, pharmacy, dentistry, engineering, public health, and liberal arts and sciences combine to provide several majors for students in the health sciences.

Also, as home to University of Iowa Hospitals and Clinics—Iowa's largest teaching hospital—and as a leading recipient of research funding from the National Institutes of Health, Iowa provides opportunities for students to complement classroom instruction with real-world and research experience. This interdisciplinary landscape helps Iowa prepare students for careers as scientists, researchers, health care professionals, and teachers in a wide variety of fields.

### Undergraduate Majors

Biochemistry (BA, BS)	Microbiology (BS)
Biology (BA, BS)	Neuroscience (BS)
Biomedical Engineering (BSE)	Nuclear Medicine Technology (BS)
Biomedical Sciences (BS)	Nursing (BSN)
Chemistry (BA, BS)	Public Health (BA, BS)
Health & Human Physiology (BA)	Radiation Sciences (BS)
Human Physiology (BS)	Speech & Hearing Science (BA)
Medical Laboratory Sciences (BS)	Therapeutic Recreation (BS)

### Pre-Dentistry, Pre-Medicine, Pre-Physical Therapy, and Pre-Physician Assistant

Iowa's professional degree programs in medicine (MD), physical therapy (DPT), and the physician assistant program (MPAS) all require an undergraduate degree prior to admission. Admission to the professional dentistry (DDS) program at Iowa requires completing 90 semester hours of college course work. Iowa provides specialized advising and preparatory course work for undergraduates interested in pursuing these professional degrees.

### Pharmacy Program (PharmD)

First-year students interested in this program must complete about two years of prerequisite undergraduate course work before applying to the professional PharmD program.

### Training and Certificate Programs

Iowa also offers paramedic and EMT training, and certificates in Aging and Longevity Studies, American Sign Language and Deaf Studies, Disability Studies, Global Health Studies, and Public Health.

## Undergraduate Degree Programs

### Biochemistry (BA or BS)

Course work for the BA and the BS includes biology, chemistry, calculus, physics, molecular biology, and other sciences.

- There are about 200 students in the undergraduate program.
- All BS students and most BA students participate in research under faculty supervision.
- Instructors for health-science related courses are College of Medicine faculty.
- Apply to the College of Liberal Arts and Sciences.

### Biology (BA or BS)

This is the study of life and is one of the most popular majors at Iowa, with about 700 students in the undergraduate program. The BA or BS in biology prepares students for a career in the life or health sciences through studies of fundamental molecular, cellular, genetic, and evolutionary principles of living systems.

- BA and BS students take a common set of courses in the basic sciences of biology, chemistry, biochemistry, and mathematics, but their remaining requirements are different.
- BA students take genetics, evolution, and cell biology, plus additional biology courses and electives offered by other departments.
- BS students choose from six tracks of study, including biotechnology and genetics, cell and developmental biology, evolutionary biology, neurobiology, plant biology, and a comprehensive track.
- Students interested in teaching will need to apply to and complete the College of Education's Teacher Education Program, and also should consider the combined BA/MAT program.
- Apply to the College of Liberal Arts and Sciences.

### Biomedical Engineering (BSE)

Iowa's undergraduate engineering program is among the top 20 percent of such programs nationwide. Many students choose the biomedical engineering major in preparation for medical school, and the department has strong ties with the UI Carver College of Medicine.

- Admission to this program is selective.
- Admission requirements include an ACT composite and math score of 25 or higher (or an SAT math score of 620 or higher and a combined critical reading and math score of 1130 or higher). Please review the complete admission requirements online.
- Tracks include bioimaging, bioinformatics, biomaterials, cardiovascular biomechanics, cellular engineering, musculoskeletal biomechanics, and pre-medicine.
- Apply directly to the College of Engineering.

**Please note:** Meeting the minimum GPA or other requirements to apply to a degree program does not guarantee acceptance into the program.

## **Undergraduate Degree Programs**

### **Biomedical Sciences (BS)**

This interdisciplinary program provides a broad foundational curriculum throughout the natural and social sciences for students interested in pursuing a career in medical practice and/or research.

- Combines course work in the natural sciences, mathematics, statistics, and the social sciences.
- Includes the expectation of conducting independent research in a faculty lab.
- Entry into the biomedical sciences major is selective and is based on demonstrated aptitude in the sciences and a commitment toward continued medical studies.
- Apply to the College of Liberal Arts and Sciences, completing the supplementary application form.

### **Chemistry (BA or BS)**

Iowa has a nationally recognized program in chemistry. The BA program is a good choice for students interested in later earning a professional degree in dentistry, medicine, law, or another professional field. It also is good preparation for secondary school teaching. The department's BS program prepares students for graduate study in chemistry or related fields and for careers in business and industry. There are about 150 students in the undergraduate chemistry program.

- Beginning course requirements differ for BA and BS students, so it's important to talk with your adviser about your career goals before registering for first-year classes.
- Apply to the College of Liberal Arts and Sciences.

### **Health & Human Physiology (BA or BS)**

The BS in Human Physiology is designed for students who want to pursue advanced degrees in the health sciences. The BA in Health and Human Physiology Health Promotion track is for students who plan to work in community or workplace wellness programs. The BA in Health and Human Physiology Exercise Science track is designed for students who have a focused interest in physical fitness, physical activity, and sport conditioning, while the Health Studies track is for students who want a more flexible science curriculum.

#### **Human Physiology (BS)**

- Entering first-year students should apply to the College of Liberal Arts and Sciences and declare Human Physiology.

#### **Health and Human Physiology (BA) – Health Promotion track**

- Entering first-year students should apply to the College of Liberal Arts and Sciences and declare Health and Human Physiology, Health Promotion track.

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## Undergraduate Degree Programs

### Health & Human Physiology (BA or BS) continued

#### Health and Human Physiology (BA) – Health Studies track

- Entering first-year students should apply to the College of Liberal Arts and Sciences and declare Health and Human Physiology, Health Studies track.

#### Health and Human Physiology (BA) – Exercise Science track

- Entering first-year students should apply to the College of Liberal Arts and Sciences and declare Health and Human Physiology, Exercise Science track.

### Medical Laboratory Sciences (BS)

Students must take several prerequisite courses (including biology, chemistry, organic chemistry, microbiology, statistics, and math) before applying for a year of clinical study at Allen College (in partnership with the University of Iowa). Students typically apply to this program in the fall semester of their junior year.

- Up to 10 new students are admitted each year.
- Admission requires a minimum 2.70 GPA in prerequisite course work.
- First-year students should apply to the College of Liberal Arts and Sciences.

### Microbiology (BS)

One of this department's strengths is the high percentage of undergraduates who participate in a wide variety of research opportunities offered through the department. It is an excellent major for students interested in professional health careers like physician or physician assistant as the focus of microbiology is the study of disease. Its faculty members teach and perform research in immunology, microbial genetics and physiology, microbial pathogenesis, and virology.

- Apply to the College of Liberal Arts and Sciences.

### Neuroscience (BS)

This major provides a rigorous and broad background in neuroscience, from the cellular and molecular levels to the behavioral and cognitive levels. Students develop a thorough understanding of the methods and discoveries of neuroscience.

- Course work includes neuroscience, chemistry, biochemistry, mathematics, and physics courses.
- Students are well prepared for graduate work in neuroscience or related life sciences; for medical school or other health-related programs such as nursing, physician assistant, or public health; or to enter the workforce in biotechnology industries, academic laboratories, science education, or science writing.
- This interdisciplinary major is administered by the Department of Biology and the Department of Psychological and Brain Sciences, in cooperation with the Iowa Neuroscience Institute within the UI Carver College of Medicine.
- Apply to the College of Liberal Arts and Sciences.

**Please note:** Meeting the minimum GPA or other requirements to apply to a degree program does not guarantee acceptance into the program.

## **Undergraduate Degree Programs**

### **Nuclear Medicine Technology (BS)**

Technologists image patients using radioactive materials and specialized equipment to produce patient images for interpretation by physicians. Admission to this program is very competitive, requiring completion of at least 60 semester hours of college course work with a minimum cumulative GPA of 2.50 to be considered.

- About 8 students are admitted each year.

### **Nursing (BSN)**

Students may be admitted to the Bachelor of Science in Nursing (BSN) program after satisfactory completion of prerequisites in the College of Liberal Arts and Sciences, although highly qualified first-year students may be admitted directly from high school through the Early Decision Admission Program. January 1 is the deadline to apply for Early Decision Admission consideration for the following fall semester.

- Up to 72 Early Decision Admission students are admitted per year.
- Up to 72 competitive admission students are admitted per year.
- Students admitted through Early Decision Admission will take four semesters of prerequisite courses followed by four semesters of nursing courses.
- Students admitted through competitive admission have five semesters to complete prerequisite courses followed by four semesters of nursing courses.

### **Public Health (BA, BS)**

Public Health is the science of protecting and improving the health of communities. The BA program provides knowledge of the community and behavioral aspects of public health. The BS program is for students who are interested in the natural sciences and want to prepare for advanced study or work in a research setting.

- Both programs provide a basic understanding of the five core public health areas: biostatistics, social and behavioral sciences, epidemiology, health policy and management, and occupational and environmental health sciences.
- Admission to the undergraduate public health majors is selective.
- Highly qualified first-year students may be admitted to the College of Public Health through the Direct Admission program. Others are admitted to the College of Liberal Arts and Sciences as public health interest majors and can apply for Standard Admission to public health after completing prerequisite courses and earning the required GPA.

### **Radiation Sciences (BS)**

Radiation Sciences professionals are technologists who use sophisticated equipment to produce images of patients for interpretation by physicians or to treat patients. The curriculum provides education in pathology, radiation biology, radiation protection, patient care, and ethics.

- Admission to this program is very competitive.
- Up to 33 students are admitted each year across six professional tracks.
- Admission requires a minimum 2.50 cumulative GPA on all college course work.
- Preference is for students who have shadowed professionals in radiation sciences and who have hands-on patient care experience.

## Undergraduate Degree Programs

### Radiation Sciences (BS) continued

- Apply to the College of Liberal Arts and Sciences declaring a Radiation Sciences interest.
- A separate application to the track of interest is due January 15 for fall admission.

### Speech and Hearing Science (BA)

This major is designed to provide preparation for graduate study in the field of communication sciences and disorders, such as the MA program in Speech Pathology and Audiology or the Doctor of Audiology (AuD) program at Iowa, both of which are the highest-ranked programs of their kind in the country. The MA program admits 20-25 new students each year.

- The average GPA for admission to the MA program is approximately 3.80.
- Apply to the College of Liberal Arts and Sciences.

### Therapeutic Recreation (BS)

The therapeutic recreation program prepares students for professional work with persons who have disabilities, impairments, and illnesses. It emphasizes the use of assessment, planning, implementation, and evaluation to provide recreation, leisure, and play activities to individuals and populations. Admission is selective and requires prerequisite courses in anatomy, human development, leisure studies, psychology, and sociology.

- Apply to the College of Liberal Arts and Sciences.

**Please note:** Meeting the minimum GPA or other requirements to apply to a degree program does not guarantee acceptance into the program.

## Pre-Professional Study

### Pre-Dentistry Designation

(for students planning to apply to the DDS Program)

The College of Dentistry's DDS program is a four-year professional degree that requires completing 90 semester hours of college course work before being considered for admission. Most students complete a bachelor's degree before entering dental school. Iowa's Deferred Admit Program (DAP) allows qualifying students who are Iowa residents to apply as undergraduates.

#### 2017 DDS Program Class Profile:

- 80 new students admitted; 70 percent Iowa residents
- 3.74 mean cumulative GPA
- 3.69 mean science GPA

## **Pre-Professional Study**

### **Pre-Medicine Designation**

(for students planning to apply to the MD Program)

The Roy J. and Lucille A. Carver College of Medicine's MD program is a four-year professional degree that begins after completing a bachelor's degree.

#### **2017 MD Program Class Profile:**

- 152 new students admitted; 70 percent Iowa residents
- 3.77 mean cumulative GPA
- 3.70 mean science GPA

### **Pre-Physical Therapy Designation**

(for students planning to apply to the DPT Program)

The Carver College of Medicine's Physical Therapy (DPT) program is a two-and-a-half-year graduate program that begins after completing a bachelor's degree.

#### **2017 DPT Program Class Profile**

- 42 new students admitted, most with more than the recommended minimum of 50 volunteer hours in multiple settings (inpatient and outpatient); approximately 70 percent Iowa residents
- 3.70 mean cumulative GPA
- 3.59 mean science GPA

### **Pre-Physician Assistant Designation**

(for students planning to apply to the MPAS Program)

The Carver College of Medicine's Physician Assistant (MPAS) program is a 28-month graduate program that begins after completing an undergraduate degree.

#### **2017 MPAS Program Class Profile**

- 25 new students admitted
- 3.71 cumulative GPA on 152 hours
- 3.76 science GPA on 76 hours
- 2,480 health care hours; 1,100 research hours

### **Pharmacy (PharmD) Program**

The College of Pharmacy's PharmD program is a four-year professional degree program that begins after completion of two to three years of undergraduate course work. It also is common for students to complete a four-year bachelor's degree first. Undergraduate first-year students interested in this program apply to the College of Liberal Arts and Sciences with a pharmacy interest.

#### **2017 Class Profile**

- 111 new students admitted; 81 percent Iowa residents
- 3.33 mean cumulative GPA
- 44 percent of students earned a BA/BS first

## **Preparatory Course Work**

The University of Iowa does not grant degrees in Chiropractic, Mortuary Science, Occupational Therapy, Optometry, Podiatric Medicine, or Veterinary Medicine, but does provide preparatory course work to help students prepare to enroll in these programs elsewhere. The Academic Advising Center helps students plan appropriate course work. Visit [www.uiowa.edu/web/advisingcenter](http://www.uiowa.edu/web/advisingcenter) for more information.

## **Training and Certificate Programs**

The university offers several certificate programs that students typically obtain to supplement their major and to acquire specialization in a particular field. Certificate programs in the health sciences include:

- Aging and Longevity Studies
- American Sign Language and Deaf Studies
- Disability Studies
- Global Health Studies
- Public Health

Certification as an Iowa Paramedic or an Emergency Medical Technician (EMT) is offered through the Emergency Medical Services Learning Resource Center at University of Iowa Hospitals and Clinics. Find more details about these programs online at [www.uihealthcare.org/EMSLRC](http://www.uihealthcare.org/EMSLRC).

## **Graduate Degree Programs**

Many students who choose Iowa for undergraduate study stay to pursue graduate and professional degrees. Iowa offers dozens of master, PhD, and professional degree programs in the health sciences, many ranked among the top 10 of their kind in the country. Visit [admissions.uiowa.edu](http://admissions.uiowa.edu) for more information.

### **For details about Iowa's admission requirements or how to apply, contact:**

University of Iowa Office of Admissions  
Phone: 319-335-3847  
Via email at: [admissions@uiowa.edu](mailto:admissions@uiowa.edu)  
Online at: [admissions.uiowa.edu](http://admissions.uiowa.edu)