Kinesiology

“The block schedule is an ideal setting for kinesiology courses. We love the ability to move smoothly between theory and practical application of concepts both on and off campus. Students will get to experience the interdisciplinary nature of this exciting specialty including working with professionals already in the field. For example, students in our Exercise and Disease course visited a local cancer center to meet with the director and work with patients during a treatment session.”

Kristi Meyer, Kinesiology Department Chair

The department of kinesiology offers a range of courses that reflect the interdisciplinary nature of the study of human movement. Cornell offers two specific degree programs in the department of kinesiology: exercise science and physical education teaching, as well as courses that lead to the Iowa Department of Education coaching endorsement or authorization.

The exercise science major is designed to provide students with a solid academic foundation in the psychological and physiological principles of human physical movement. This science-based curriculum offers students the flexibility to prepare for careers in the health and fitness professions or for graduate study in health fields including physical therapy, athletic training, exercise science, sport and exercise psychology, occupational therapy, biomechanics, nursing, cardiac rehabilitation, nutrition, and chiropractic medicine (among others). Those majoring in physical education teaching may apply for a teaching certification at the elementary and secondary levels, including adapted physical education. Coursework is available leading to the State of Iowa coaching authorization or endorsement.

**BENEFITS OF ONE COURSE AT A TIME**

One Course At A Time provides flexibility in class scheduling and diversity in student experiences. Kinesiology courses combine lecture and discussion sessions with lab activities, provide opportunities for students to engage in practical applications, and offer a variety of off-campus experiences. Because students enroll in a single course each block, entire courses can visit facilities and professionals at work in the field. Students also have the flexibility to engage in one- or two-block internships, or work with faculty members on advanced projects of scholarly interest.

**CURRICULUM HIGHLIGHTS**

The exercise science major offers the scientific rigor and flexibility necessary to support students’ diverse postgraduate goals. Students go on to careers in the health and wellness industry or graduate study in exercise science fields. For students interested in postgraduate education in the health-related fields such as medicine and physical therapy, we partner with Cornell’s Dimensions Program for Health Professions. Initial coursework includes human anatomy, physiology, and psychology. Advanced courses combine the investigation of theoretical and technical aspects of human physical performance within the context of physical fitness, athletic performance, or pathological states with hands-on training using advanced physiological and psychomotor data acquisition systems.

The physical education major emphasizes theory and application of physical education pedagogy, ethics, and administrative concepts associated with teaching at the elementary and secondary school levels. The Cornell kinesiology and education departments work closely together to ensure that students receive optimal preparation for teaching physical education. Students engage in applied applications, and offer a variety of off-campus experiences. Because students enroll in a single course each block, entire courses can visit facilities and professionals at work in the field. Students also have the flexibility to engage in one- or two-block internships, or work with faculty members on advanced projects of scholarly interest.

**Faculty Bios & Courses**

**JUSTUS HALLAM**

Assistant Professor of Kinesiology

Teaches a range of courses in kinesiology including Systems Physiology, Exercise Physiology, Lifetime Fitness and Activity, Nutrition, Exercise Testing, and Prescription and Foundations in Kinesiology. Ph.D., kinesiology and immunobiology, Iowa State University.

**CHRISTINA JOHNSON**

Assistant Professor of Kinesiology

Teaches a range of courses in kinesiology including Psychology of Sport, Exercise Psychology, Sports in American Society, Foundations of Kinesiology, and Lifetime Fitness and Activity. Ph.D., psychology of sport and physical activity, University of Iowa.

**KRISTI MEYER**

Associate Professor of Kinesiology

Teaches a range of courses in kinesiology including Systems Physiology, Exercise Physiology, Anatomy, Nutrition, Exercise Testing and Prescription, and Human Biomechanics. She is an American Physical Therapy Association certified specialist in sports physical therapy, and a certified athletic trainer. D.P.T., physical therapy, University of Minnesota.

**COLIN PENNINGTON**

Visiting Assistant Professor of Kinesiology

methods courses, observations of teaching professionals, practica experiences in schools, and supervised student teaching to qualify for the physical education teaching certification.

The coaching education program develops students’ knowledge for successful athletic coaching in secondary schools. Completion of two courses, Coaching Endorsement or Authorization and Care and Prevention of Athletic Injuries, satisfies requirements for the Iowa Department of Education coaching authorization and endorsement.

**FACILITIES**

Our exercise science and physiology laboratory is equipped with physical performance instrumentation including:

- Oxygen consumption and metabolic analysis system.
- Body composition analysis via bioelectrical impedance and skinfold thickness.
- Noninvasive blood pressure, heart rate, and force dynamometer equipment.
- Research-grade calibrated Monarch cycle ergometer.
- EMG, ECG, and EEG instrumentation.
- Blood lactate analysis.
- Research-grade Biopac physiological data acquisition units.

**RESEARCH & INTERNSHIPS**

Students have the opportunity to work closely with kinesiology faculty to complete both independent and collaborative research projects. Students may apply for the Cornell Summer Research Institute or work with professors independently during the academic year. Recent students have taken advantage of our exercise physiology, biomechanics, and psychology labs to conduct research on various topics including:

- Physiological and psychological effects of sleep deprivation.
- Physiological responses of wrestlers and non-wrestlers to high-temperature training environments.
- Comparative movement analysis of a baseball pitcher’s throw.
- Success rates of allograft versus autograft anterior cruciate ligament repair in adolescents.
- Mental imagery in athletic injury rehabilitation.
- Nutrition and physical performance in the female athlete.

Students have held sports internships with the Cedar Rapids Kernels, University of Iowa Athletics, Iowa Sports Festival, and NBA clinics; fitness and wellness internships with Mercy Medical Center and St. Luke’s Hospital, Rockwell Collins, physical therapy offices, and children’s hospitals; and recreation and wellness internships with wilderness camps, personal fitness centers, and health clubs.

**AFTER CORNELL**

Kinesiology majors may enroll in graduate study programs to pursue degrees in athletic training, public health, physical therapy, occupational therapy, chiropractic medicine, sports and exercise psychology, among others. Some students may choose to become teachers and coaches or work in hospital, commercial, and corporate fitness, wellness, and rehabilitation programs.

According to the U.S. Bureau of Labor Statistics, jobs for exercise physiologists (median pay: $49,090), athletic trainers (median pay: $46,630), fitness instructors ($39,210), and physical therapists (median pay: $86,850) will grow much faster than average over the next eight years.

**ALUMNI CAREERS**

Manager of operations, Madison Mallards, Madison, Wisconsin (Class of 2017)

Head volleyball coach, Aces Volleyball Club, Edwardsville, Illinois (Class of 2017)

Child life specialist, Warsaw, Illinois (Class of 2016)

Health and physical education teacher, Saudi Arabia (Class of 2016)

Registered nurse, Las Vegas, Nevada (Class of 2016)

Owner and personal trainer, Latow Fitness, Orange City, Florida (Class of 2015)

Healthcare recruiter, Addison Group, Denver, Colorado (Class of 2015)

Physical therapist assistant, Cedar Rapids, Iowa (Class of 2015)

Regional director, Regymen Fitness, Baton Rouge, Louisiana (Class of 2015)

Physical therapist, Minneapolis, Minnesota (Class of 2014)

Head Softball Coach, Cornell College, Mount Vernon, Iowa (Class of 2014)

Client sales and service associate, Seattle Mariners, Seattle, Washington (Class of 2014)

**GRADUATE SCHOOLS ATTENDED**

Doctor of Physical Therapy, University of Iowa, Iowa City (Class of 2017)

M.S., athletic training, Northern Arizona University, Flagstaff (Class of 2017)

Doctor of Chiropractic and master’s in clinical nutrition, Life University, Marietta, Georgia (Class of 2017)

Doctor of Physical Therapy and master’s in athletic training, Saint Louis University, St. Louis, Missouri (Class of 2016)

M.S., kinesiology, University of Northern Iowa, Cedar Falls (Class of 2016)

M.S., child life, University of South Carolina, Charleston (Class of 2016)

Doctor of Physical Therapy, University of Colorado-Denver, (Class of 2015)

M.S., occupational therapy, Florida Gulf Coast University, Fort Myers (Class of 2015)