BIOMEDICAL SCIENCES AND ENGINEERING (BSE)

BSE Class Schedule (https://courses.illinois.edu/schedule/DEFAULT/DEFAULT/BSE)

Courses

**BSE 611 Orientation**  credit: 1 Hour.
This course examines life skills for medical school: sleep, nutrition, understanding self, emotional intelligence, new vocabulary, clinical reasoning, thinking like a doctor and an engineer, resource review, problem solving, design, future patient care, systems, regulations. No graduate credit. 1 professional hour. Approved for S/U grading only.

**BSE 612 Foundational Elements**  credit: 10 Hours.
This course covers the fundamental elements of medical science. The course serves as a baseline for the rest of the medical school curriculum. Topics to be covered include foundational anatomy, cell biology, histology, physiology, integration of engineering science, systems, microbiology, pharmacology, genetics, and behavioral science. No graduate credit. 10 professional hours. Approved for S/U grading only. Prerequisite: This course is restricted to students enrolled in the MD program at Carle Illinois College of Medicine.

**BSE 613 Population Health**  credit: 2 Hours.
This course covers a range of topics including concepts of populations, social behavior, chronic disease, health care team, patient safety, statistics, big data, PCMH, palliative care, quality, compensation, and mobile health technologies. No graduate credit. 2 professional hours. Approved for S/U grading only. Prerequisite: This course is restricted to students enrolled in the MD program at Carle Illinois College of Medicine.

**BSE 631 Cardiovascular**  credit: 4 Hours.
Topics include ischemic heart Dx, cardiomyopathy/CHF, aortic stenosis, atrial fibrillation, peripheral vascular disease, pediatric ASD. No graduate credit. 4 professional hours. Approved for S/U grading only. Prerequisite: This course is restricted to students enrolled in the MD program at Carle Illinois College of Medicine.

**BSE 632 Respiratory**  credit: 3 Hours.
Topics include asthma – peds, COPD, Pulmonary Fibrosis, Respiratory failure, pulmonary vasculitis. No graduate credit. 3 professional hours. Approved for S/U grading only. Prerequisite: This course is restricted to students enrolled in the MD program at Carle Illinois College of Medicine.

**BSE 633 Renal**  credit: 3 Hours.
Topics include UTI with pyelonephritis, urinary obstruction-BPH, acute renal failure-toxic, chronic renal failure-DM, polycystic renal disease-peds. No graduate credit. 3 professional hours. Approved for S/U grading only. Prerequisite: This course is restricted to students enrolled in the MD program at Carle Illinois College of Medicine.

**BSE 634 Clinical Neuroscience**  credit: 5 Hours.
Topics include neurovascular disorders, seizures, brain injury, dementia, tumors of the brain, disorders involving neuroinflammation, psychotic disorders, affective disorders, anxiety disorders, as well as disorders of the peripheral nervous system and neuromuscular junction. No graduate credit. 5 professional hours. Approved for S/U grading only. Prerequisite: This course is restricted to students enrolled in the MD program at Carle Illinois College of Medicine.

**BSE 635 Musculoskeletal**  credit: 4 Hours.
Topics include primary inflammatory diseases such as rheumatoid arthritis, lupus, polymyalgia rheumatica and associated disorders, degenerative diseases of the joints such as osteoarthritis, primary diseases of muscle, primary diseases of bone such as osteoporosis and osteogenesis imperfecta as well as mechanical trauma to bone leading to fracture. No graduate credit. 4 professional hours. Approved for S/U grading only. Prerequisite: This course is restricted to students enrolled in the MD program at Carle Illinois College of Medicine.