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.

Biomedical Sciences Engr Courses

The University of Illinois at Urbana-Champaign Doctor of Medicine (MD) program is conducted on the Urbana Campus in the Carle Illinois College of Medicine. The college offers a professional, four-year MD degree program that integrates engineering concepts with the traditional pillars of medicine, namely the basic health sciences and clinical training, and prepares students for postgraduate medical education programs. This curriculum produces students who are trained and equipped to incorporate analytical and quantitative techniques, modeling and computation, innovation, and human systems approaches to advancing and delivering high quality healthcare. The curriculum emphasizes professional, compassionate, and ethical care and the utilization of team-based approaches to transform healthcare delivery and improve healthcare outcomes through the continuum of care: preventive medicine through acute care. In addition to required courses, elective rotations provide opportunities for students to explore specialized areas of interest. Students have the option to complete a research thesis that may lead to the award of an MD degree with High Honors. The educational program spans four (4) years. Students are exposed to extensive clinical training, professional development and scientific and engineering education through a case-driven active learning curriculum.

Admissions
The college selects applicants with the best combination of academic and extracurricular achievement, maturity, integrity, and motivation. Selection of students is based on an assessment of all available data and an evaluation of skills and aptitude. The quality of work in all subject areas is considered, with an emphasis on quantitative methods, breadth of education, and experiences that demonstrate initiative, creativity and interest in compassionate patient care.

For more information about the University of Illinois at Urbana-Champaign MD program, please consult the following websites:
Admissions: http://www.medicine.illinois.edu/admissions
Financial Aid: http://www.medicine.illinois.edu/finaid
MD Program: http://www.medicine.illinois.edu/prospective_students/
BSE Class Schedule (https://courses.illinois.edu/schedule/DEFAULT/CLE/BSE)

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.

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Information listed in this catalog is current as of 03/2018
Clinical Sciences Engr Courses

CLE 611  Clinical Integration I  credit: 12 Hours.
This course examines and exposes to the fundamentals of clinical work including office support with basic history, vitals, understanding the team, communicating with patients, observing health care roles and processes. No graduate credit. 12 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.

CLE 612  Clinical Integration II  credit: 6 Hours.
This course examines and exposes to the fundamentals of clinical work including office support with basic history, vitals, understanding the team, communicating with patients, observing health care roles and processes. No graduate credit. 6 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.

CLE 621  Physical Diagnosis I  credit: 6 Hours.
This course addresses concepts of history and physical assessment, includes H&P, preoperative assessment, routine physicals. No graduate credit. 6 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.

CLE 622  Physical Diagnosis II  credit: 6 Hours.
This course addresses concepts of history and physical assessment, includes H&P, preoperative assessment, routine physicals. No graduate credit. 6 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.