

INTEGRATED LIFE SCIENCES - B.S./M.D.

College of Arts and Sciences

104 Bowman Hall
Kent Campus
www.kent.edu/cas

Description

Admission to the Bachelor of Science degree in Integrated Life Sciences has been suspended temporarily as of fall 2019.

The Bachelor of Science degree in Integrated Life Sciences allows students to matriculate to medical degree studies at the Northeast Ohio Medical University (NEOMED). Students in the program are enrolled for 11 months in each of the six academic years. Phase I of the program is spent on the Kent Campus and begins with a summer term and continues through two academic years and two additional summer terms. During this period, coursework is focused on studies in the behavioral and basic pre-medical sciences. It also includes orientation to clinical medicine and work in the humanities.

Phase II of the program involves intensive medical training and may be accompanied by summer coursework in the humanities. In the first year of Phase II, students study the basic medical sciences, including anatomy, physiology and microbiology, at the NEOMED Basic Medical Sciences Campus in Rootstown. Students may return to the Kent Campus for the summer term following this year to complete any requirements for the B.S. degree.

In the remaining three years of Phase II (years four, five and six of the overall program), students develop competence in the clinical aspects of medicine through instruction provided principally at one or more of the community hospitals associated with the program.

Fully Offered At:

Kent Campus

Accreditation

NEOMED is fully accredited by the Association of American Medical Colleges and the Council on Medical Education of the American Medical Association.

Admission Requirements

Admission to the Integrated Life Sciences major is selective. Current high school students and those students who have completed high school, but have not yet earned college credit after graduating from high school, may be considered for the combined B.S./M.D. program. Students who earn college credits while in high school are eligible. For more information on admissions, visit the admissions website for new freshmen.

Progress through the undergraduate portion of the B.S./M.D. program is measured by academic performance and development of personal maturity appropriate to assumption of professional responsibility. The Committee on Academic and Professional Progress (CAPP) will assess these factors and the student's successful performance on the MCAT in order to recommend students for promotion and formal admission to Phase II of the program.

English Language Proficiency Requirements for International Students:

All international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning a minimum 525 TOEFL score (71 on the Internet-based version), minimum 75 MELAB score, minimum 6.0 IELTS score or minimum 48 PTE Academic score, or by completing the ELS level 112 Intensive Program. For more information on international admission, visit the Office of Global Education's admission website.

Program Learning Outcomes

Graduates of this program will be able to:

1. Describe the major functions of the human body and the mechanisms of disease.
2. Recognize the humanistic aspects of medicine.
3. Demonstrate an appreciation of the experiences of their patients, and their own experiences, beyond medical practice.

Program Requirements

Major Requirements

| Code | Title | Credit Hours |
|--|---|--------------|
| Major Requirements (courses count in major GPA) | | |
| BSCI 10120 | BIOLOGICAL FOUNDATIONS (KBS) (KLAB) | 4 |
| BSCI 30140 | CELL BIOLOGY | 4 |
| BSCI 30156 | ELEMENTS OF GENETICS | 3 |
| BSCI 30171 | GENERAL MICROBIOLOGY | 4 |
| BSCI 30519 | VERTEBRATE EMBRYOLOGY AND DEVELOPMENTAL ANATOMY | 4 |
| BSCI 40242 | SEMINAR ON MEDICAL PRACTICE FOR UNDERSERVED POPULATIONS | 2 |
| CHEM 10062 | GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB) | 1 |
| CHEM 10063 | GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB) | 1 |
| CHEM 10970 | HONORS GENERAL CHEMISTRY I (KBS) | 4 |
| CHEM 10971 | HONORS GENERAL CHEMISTRY II (KBS) | 4 |
| CHEM 30475 | ORGANIC CHEMISTRY LABORATORY I (ELR) | 1 |
| CHEM 30481 | ORGANIC CHEMISTRY I | 3 |
| CHEM 30482 | ORGANIC CHEMISTRY II | 3 |
| CHEM 40245 | BIOCHEMICAL FOUNDATIONS OF MEDICINE | 4 |
| HONR 10197 | FRESHMAN HONORS COLLOQUIUM I (KCMP) | 3 |
| HONR 10297 | FRESHMAN HONORS COLLOQUIUM II (KCMP) | 3 |
| ILS 21091 | INTEGRATED LIFE SCIENCES SEMINAR I | 2 |
| ILS 21092 | INTEGRATED LIFE SCIENCES SEMINAR II (ELR) | 2 |
| ILS 30392 | PSYCHOLOGICAL HELPING SKILLS FOR MEDICINE (ELR) | 3 |
| ILS 32092 | INTEGRATED LIFE SCIENCES SEMINAR IV (ELR) | 2 |
| ILS 40392 | PRACTICUM IN MEDICAL PSYCHOLOGY (ELR) | 3 |
| ILS 42591 | MEDICAL SOCIOLOGY RESEARCH SKILLS | 2 |
| ILS 42592 | MEDICAL SOCIOLOGY PRACTICUM (ELR) (WIC) | 3 |
| MATH 12021 | CALCULUS FOR LIFE SCIENCES | 4 |
| MATH 12022 | PROBABILITY AND STATISTICS FOR LIFE SCIENCES | 3 |
| PHY 13001 & PHY 13021 | GENERAL COLLEGE PHYSICS I (KBS) and GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB) | 5 |
| or PHY 23101 | GENERAL UNIVERSITY PHYSICS I (KBS) (KLAB) | |

| | | |
|--|---|-----|
| PHY 13002 & PHY 13022 or PHY 23102 | GENERAL COLLEGE PHYSICS II (KBS) and GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB) GENERAL UNIVERSITY PHYSICS II (KBS) (KLAB) | 5 |
| PSYC 11762 | GENERAL PSYCHOLOGY (DIVD) (KSS) | 3 |
| PSYC 40111 | ABNORMAL PSYCHOLOGY | 3 |
| SOC 22100 | SOCIOLOGICAL ANALYSIS | 3 |
| SOC 42563 | SOCIOLOGY OF HEALTH AND HEALTH CARE | 3 |
| SOC 44010 | SOCIOLOGICAL PERSPECTIVES IN MEDICINE | 3 |
| Fine Arts Elective | | 3 |
| History, Literature, Philosophy Electives | | 12 |
| Humanities Elective | | 3 |
| Additional Requirements (courses do not count in major GPA) | | |
| UC 10097 | DESTINATION KENT STATE: FIRST YEAR EXPERIENCE | 1 |
| Electives (total credit hours depends on earning 122 credit hours) | | 6 |
| Minimum Total Credit Hours: | | 122 |

THE HUMANITIES COMPONENT (18)

Objective: Within the constraints imposed and the opportunities afforded by summer academic scheduling, to provide disciplined experience in and exposure to the differing modes of thought, perception/perspectives and methodologies of the disciplines usually classified as the "humanities" in arriving at informed critical analyses of the human experience.

Requirement: 18 credit hours of academic credit. At least one of the courses taken to satisfy the humanities must also satisfy the diversity requirement*. The humanities requirements may be fulfilled in the following fashion during the students' fourth and fifth summers (fourth and sixth summers for students who begin core clerkships in fifth summer, rather than in the fall) in the joint six-year B.S./M.D. program offered by the university in conjunction with the Northeast Ohio Medical University.

I. Fine Arts (3)

Students are to take at least one approved course from the list of Kent Core Fine Arts courses.

II. History, Literature, Philosophy (12)

Students must take two courses (one lower and one upper division) from two of the following three fields:

- History
- Literature
- Philosophy (students are strongly urged to take an ethics course)

III. Humanities Elective (3)

Students are to take one additional course in Humanities, Fine Arts or Foreign Language.

IV. Electives (6)

During the time devoted to fulfillment of the humanities requirements of the ILS program, students also will be taking "elective" hours sufficient to complete the 122 credit hours of satisfactorily completed academic credits required for the B.S. degree as offered through the College of Arts and Sciences of Kent State University. Humanities hours in excess of the 18 credit hours minimum of the humanities component requirement will be applied toward these "elective" credit hours.

Diversity (6)

Students must also satisfy the 6 credit hours diversity requirement of the university. At least one of the courses taken to satisfy the humanities must also satisfy the diversity requirement. The 6 credit hours diversity requirement is fulfilled with one domestic diversity course and one global diversity course.

Graduation Requirements

| Minimum Major GPA | Minimum Overall GPA |
|-------------------|---------------------|
| 2.000 | 2.000 |

- All courses taken from the list of major program requirements are used in the calculation of the major GPA.

Roadmap

First Year

| Summer 1 | | Credits |
|-------------------------|--|---------|
| PSYC 11762 | GENERAL PSYCHOLOGY (DIVD) (KSS) | 3 |
| SOC 22100 | SOCIOLOGICAL ANALYSIS | 3 |
| UC 10097 | DESTINATION KENT STATE: FIRST YEAR EXPERIENCE | 1 |
| Humanities or Electives | | 6 |
| Credit Hours | | 13 |

Fall 1

| | | |
|--------------|--|----|
| BSCI 10120 | BIOLOGICAL FOUNDATIONS (KBS) (KLAB) | 4 |
| CHEM 10062 | GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB) | 1 |
| CHEM 10970 | HONORS GENERAL CHEMISTRY I (KBS) | 4 |
| HONR 10197 | FRESHMAN HONORS COLLOQUIUM I (KCMP) | 3 |
| ILS 21091 | INTEGRATED LIFE SCIENCES SEMINAR I | 2 |
| MATH 12021 | CALCULUS FOR LIFE SCIENCES | 4 |
| Credit Hours | | 18 |

Spring 1

| | | |
|--------------|---|----|
| BSCI 30140 | CELL BIOLOGY | 4 |
| CHEM 10063 | GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB) | 1 |
| CHEM 10971 | HONORS GENERAL CHEMISTRY II (KBS) | 4 |
| HONR 10297 | FRESHMAN HONORS COLLOQUIUM II (KCMP) | 3 |
| ILS 21092 | INTEGRATED LIFE SCIENCES SEMINAR II (ELR) | 2 |
| SOC 42563 | SOCIOLOGY OF HEALTH AND HEALTH CARE | 3 |
| Credit Hours | | 17 |

Second Year

| Summer 2 | | Credits |
|------------------------|---|---------|
| BSCI 30156 | ELEMENTS OF GENETICS | 3 |
| ILS 42591 | MEDICAL SOCIOLOGY RESEARCH SKILLS | 2 |
| ILS 42592 | MEDICAL SOCIOLOGY PRACTICUM (ELR) (WIC) | 3 |
| SOC 44010 | SOCIOLOGICAL PERSPECTIVES IN MEDICINE | 3 |
| Humanities or Elective | | 3 |
| Credit Hours | | 14 |

Fall 2

| | | |
|------------|--|---|
| BSCI 30171 | GENERAL MICROBIOLOGY | 4 |
| BSCI 40242 | SEMINAR ON MEDICAL PRACTICE FOR UNDERSERVED POPULATIONS | 2 |
| CHEM 30475 | ORGANIC CHEMISTRY LABORATORY I (ELR) | 1 |
| CHEM 30481 | ORGANIC CHEMISTRY I | 3 |
| MATH 12022 | PROBABILITY AND STATISTICS FOR LIFE SCIENCES | 3 |

| | | |
|--|---|-----|
| PHY 13001 & PHY 13021 or PHY 23101 | GENERAL COLLEGE PHYSICS I (KBS) and GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB) or GENERAL UNIVERSITY PHYSICS I (KBS) (KLAB) | 5 |
| Credit Hours | | 18 |
| Spring 2 | | |
| BSCI 30519 | VERTEBRATE EMBRYOLOGY AND DEVELOPMENTAL ANATOMY | 4 |
| CHEM 30482 | ORGANIC CHEMISTRY II | 3 |
| CHEM 40245 | BIOCHEMICAL FOUNDATIONS OF MEDICINE | 4 |
| ILS 32092 | INTEGRATED LIFE SCIENCES SEMINAR IV (ELR) | 2 |
| PHY 13002 & PHY 13022 or PHY 23102 | GENERAL COLLEGE PHYSICS II (KBS) and GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB) or GENERAL UNIVERSITY PHYSICS II (KBS) (KLAB) | 5 |
| Credit Hours | | 18 |
| Third Year | | |
| Summer 3 | | |
| ILS 30392 | PSYCHOLOGICAL HELPING SKILLS FOR MEDICINE (ELR) | 3 |
| ILS 40392 | PRACTICUM IN MEDICAL PSYCHOLOGY (ELR) | 3 |
| PSYC 40111 | ABNORMAL PSYCHOLOGY | 3 |
| Humanities or Elective | | 3 |
| Credit Hours | | 12 |
| Fall 3 | | |
| Phase II NEOMED | | |
| Credit Hours | | 0 |
| Spring 3 | | |
| Phase II NEOMED | | |
| Credit Hours | | 0 |
| Fourth Year | | |
| Summer 4 | | |
| Humanities or Electives (if not completed earlier) | | 12 |
| Credit Hours | | 12 |
| Minimum Total Credit Hours: | | 122 |