J-3. Subject Requirements (Core Curriculum). A university education is a preparation both for living and for making a living. It offers an opportunity not only to lay the foundations of a career, but also to develop the mind to its highest potential, to cultivate the imagination as well as the power to reason, and to gain the intellectual curiosity that makes education a life-long enterprise. A central component of this preparation is the requirement that a student working toward a baccalaureate degree must complete 33-36 credits of the necessary course work in the four categories described below. This requirement is to be satisfied by earning the minimum number of credits specified for each category. (Transfer students have two options for fulfilling this requirement; these are described under “General Education Requirements for Transfer Students” in the Undergraduate Admission section in Part 2 of this catalog. Courses that fulfill requirements in each category are reviewed each year and the list is updated in the Spring. Students and advisors are encouraged to check the list when it is published in the Spring to be aware of any additional courses that have been added to meet specific requirements. Note: Though a given course may be listed under more than one category, it may be used to satisfy the requirement in only one category. Remedial courses may not be used to satisfy any of this requirement. Degree-seeking students must be enrolled in Engl 090, 101, or 102 in their first semester in residence and in each subsequent semester until they have passed Engl 102. They must also be enrolled in Math 108 or in a course that meets the core requirement in mathematics, statistics, or computer science in their first year in residence and in each subsequent semester until the core requirements in mathematics, statistics, or computer science has been satisfied.

J-3-a. Communication (5-7 cr). The purpose of this requirement is to develop the ability to organize one's thoughts, to express them simply and clearly, to observe the standards and conventions of language usage, and to suit tone to audience. The requirement is proficiency in written English equal to that needed for the completion of UI course Engl 102 and the completion of one additional course in this category.

Public Speaking. Students who receive a passing grade in Comm 101, Fundamentals of Public Speaking, are expected to develop and demonstrate the ability to make oral presentations in one-on-one settings, small groups, and large groups. Students should be able to demonstrate basic competency in (1) organization and preparation, (2) oral language use and presentation, and (3) addressing audience needs and interests.

Written English. Students who receive a passing grade in any of the five English classes included in the core are expected to develop and demonstrate competencies in their writing in (1) organization and development, (2) sentence variety and word choice, and (3) language usage conventions.

The following specific provisions apply to the English composition component:

(1) Students who attain a satisfactory score on the College Board English Achievement or Scholastic Aptitude (Verbal) Test or the American College Testing (ACT) English Test will be awarded credit and grades of P for Engl 101 and 102. Also, students who attain a score of 4 on the Advanced Placement Test in English will be awarded credit and a grade of P for Engl 101 and students who attain a score of 5 on the Advanced Placement Test in English will be awarded credit and grades of P for Engl 101 and 102.

(2) Students who do not meet the conditions stated in paragraph (1) will be tentatively placed, on the basis of their scores on the tests cited above, in either Engl 101 or 102.

(3) UI accepts credits earned in comparable writing courses taken at other accredited institutions. (See credit limitation in J-5-d.)

Comm 101, Fundamentals of Public Speaking (2 cr)
Engl 207, Persuasive Writing (3 cr)
Engl 208, Personal and Exploratory Writing (3 cr)
Engl 209, Inquiry-Based Writing (3 cr)
Engl 313, Business Writing (3 cr)
Engl 316, Environmental Writing (3 cr)
Engl 317, Technical Writing (3 cr)
Phil 102, Reason and Rhetoric (2 cr)
J-3-b. Natural and Applied Science (8 cr which include two accompanying labs OR 7 cr which includes a CORES 201 course and one course with lab). The purpose of this requirement is to develop a better understanding of the physical and biological world by learning some of the principles that explain the natural phenomena of the universe, the experimental method used to derive those principles, and their applications.

Study in this area is undertaken as part of the general education requirements in order to promote scientific literacy, that is, the ability to read and understand the science issues being debated in society. Scientific literacy is essential if citizens are to make informed judgments on the wide range of issues that affect their everyday lives. Students receiving passing grades in the natural and applied science courses of the core curriculum will demonstrate competency in the following areas: (1) knowledge of scientific principles; (2) the ability to write clearly and concisely using the style appropriate to the sciences; (3) the ability to interpret scientific data; (4) the ability to analyze experimental design critically; and (5) the development of laboratory skills.

Biol 102, Biology and Society (4 cr)
Biol 115, Cells and the Evolution of Life (4 cr)
Biol 116, Organisms & Environments (4 cr)
Chem 100, Chemistry and the Citizen (4 cr), OR Chem 101, Introduction to Chemistry I (4 cr), OR Chem 111, Principles of Chemistry I (4 cr)
Chem 112, Principles of Chemistry II (5 cr)
CORES 201205-298, Integrated Science (3 or 4 cr)
Ent/Biol 211, Insect Biology (4 cr)
EnvS 101, Introduction to Environmental Science, and EnvS 102, Field Activities in Environmental Sciences (4 cr)*
Geog 100, Physical Geography (4 cr)
Geol 101, Physical Geology (4 cr)
Geol 102, Historical Geology (4 cr)
MMBB 154, 155 Introductory Biology of Bacteria and Viruses (4 cr)*
Phys 100, Fundamentals of Physics (4 cr)
Phys 103, 104, General Astronomy and Lab (4 cr)*
Phys 111, General Physics I (4 cr)
Phys 112, General Physics II (4 cr)
Phys 211, Engineering Physics I (4 cr)
Phys 212, Engineering Physics II (4 cr)

*To be counted toward satisfaction of this requirement, the full four credits (that is, both the lecture course and the accompanying laboratory course) must be completed.

J-3-c. Mathematics, Statistics, or Computer Science (3 cr). Mathematical reasoning as a skill and as a theoretical structure has played a crucial role in modern civilization as well as in the everyday lives of individuals. The core curriculum requirement in mathematics, statistics, or computer science should, therefore, foster both an appreciation for the aesthetic and historical dimensions of these areas and a sense of their practical necessity.

Mathematics, statistics, and computer science courses help students develop analytical, quantitative, and problem solving skills by involving them in doing mathematics, statistics, or computer science and by focusing on understanding the concepts of these disciplines.

Students receiving passing grades in mathematics, statistics, or computer science will have: (1) an understanding of key terms and concepts including a historical perspective of their origins and (2) the ability to recognize, analyze, and solve problems.

CS 101, Introduction to Computer Science (3 cr)
CS 112, Introduction to Problem Solving and Programming (3 cr)
Math 123, The Spirit of Mathematics (3 cr)
Math 130, Finite Mathematics (3 cr)
Math 137, Algebra with Applications (3 cr)
Math 143, Pre-calculus Algebra and Analytic Geometry (3 cr)
Math 160, Survey of Calculus (4 cr)
Math 170, Analytic Geometry and Calculus I (4 cr)
Stat 150, Introduction to Statistics (3 cr)
Stat 251, Principles of Statistics (3 cr)
J-3-d. General Core Studies (GCS). 18 credits including the following:

(1) **Core Discovery:** One course from CORE 401103-149 or and one course from CORE 402153-199 (at least one course).

(2) **Cluster Courses:** Three courses (minimum 8 credits) chosen from one UCGE (University Committee on General Education)-approved core cluster. (Students in the University Honors Program are not restricted to the core cluster courses, but may elect to choose Honors courses.) The three courses must include at least two different disciplines, one upper-division course and must include one upper-division course, and can include no more than one 100-level course, at least two different disciplines. CORE courses may not be used to satisfy the discipline requirement.

(3) **International Course:** One UCGE-approved international course with a contemporary international or global focus.

(4) **Humanities/Social Sciences:** 14 credits in a combination of humanities and social science courses with a minimum of six credits in humanities and six credits in social sciences.

Additional credits to total the required 18 credits may be selected from courses in any core cluster, the international course listing and the UCGE-approved listing of general elective core fine arts and capstone courses.

Core Discovery courses and the cluster courses may also be international courses as well as humanities or social science courses—A course may be used toward more than one of the above requirements but may count only once toward the required 18 credits. Courses used to satisfy requirements in J-3-a, J-3-b, and J-3-c may not be used toward the above requirements.