**□ College of Humanities**

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| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1]College Writing: Process & Structure(3) | 3 |  |
| Foreign Languages | Second Foreign Languages | [1-1] Second Foreign Language(3)[1-2]Second Foreign Language(3) [2-1] Second Foreign Language(3) | 9 |  |
| English | [1-2][2-1] Must earn 2 or 4 credits from among College English 1, College English 2, or Advanced English according to the TEPS score.  | 2(4) |  |
| Worlds of Knowledge | Language and Literature |  | 6 | 3 | •Must earn 15 credits or more in at least 4 different areas.•Must complete one of the recommended courses, which are indicated with a star (DRW000022144352 ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy. |
| Culture and Art |  |
| History and Philosophy |  |
| Politics and Economy |  | 3 |
| Humans and Society |  |
| Nature and Technology |  | 3 |
| Life and Environment |  |
| General Education Electives | One course from either Readings in Classics 1 or Readings in Classics 2 (1) | 2 |  |
| All General Education Courses  |  | 5(3) | • Students may select any courses from the list of General Education courses.  |

※ Courses in Nature and Technology and Life and Environment from <Worlds of Knowledge> can be substituted with courses in Mathematical Sciences and Natural Sciences from <Academic Foundations>.

※ Second Foreign Language Requirements

- Students in the College of Humanities must earn 9 credits in Second Foreign Language courses and must complete at least one course at the intermediate level or above.

- Students who major in Second Foreign Language must complete the above requirement by taking different foreign or classical language courses than English and their major foreign language courses.

※ Numbers in brackets indicate semester scheduling recommendations.

※ Note the following table for the foreign and classical language courses at the intermediate level and above.

|  |  |
| --- | --- |
| Foreign and Classical Languages  | Course Titles of Intermediate and Above Foreign Languages and Classical Languages |
| Classical Chinese | Intermediate Classical Chinese, Readings in Classical Chinese Masterpieces, Selected Classical Chinese Readings in History and Philosophy by Chinese and Korean Writers |
| Chinese | Intermediate Chinese 1, Intermediate Chinese 2, Chinese Conversation 1, Chinese Conversation 2, Media Chinese |
| French | Intermediate French 1, Intermediate French 2, French Composition, Current French  |
| German  | Intermediate German 1, Intermediate German 2, German Composition, Readings in German Texts, Contemporary German |
| Russian | Intermediate Russian 1, Intermediate Russian 2, Russian Conversation, Readings in Russian Art and Culture, Exploring Russian Media  |
| Spanish | Intermediate Spanish 1, Intermediate Spanish 2, Spanish Composition, Spanish Conversation, Current Spanish  |
| Other Foreign and Classical Languages  | Introduction to Portuguese 2, Italian 2, Arabic 2, Hindi 2, Swahili 2, Turkish 2, Vietnamese 2, Malay-Indonesian 2, Sanskrit 2, Advanced Japanese 1, Advanced Japanese 2, Classical Greek 2, Latin 2  |

**□ College of Social Sciences**

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories  | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1]College Writing: Process & Structure(3) | 3 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 800 and below upon matriculation must take at least one English course. [1-2]  |
| Worlds of Knowledge | Language and Literature |  | 12 | •Must earn at least 12 credits in at least 4 out of 7 areas including at least 3 credits in either Nature and Technology or Life and Environment. |
| Culture and Art |
| History and Philosophy |
| Politics and Economy |
| Humans and Society |
| Nature and Technology | (3) |
| Life and Environment |
| All General Education Courses  |  | 15-17 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Natural Sciences**

|  |  |
| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2]College Writing: Process & Structure(3) | 3 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | Must take one course from among the following: Calculus 1,2(6)Honor Calculus and Practice 1,2(6), or Differential and Integral Calculus 1,2(8) (6Credits or 8Credits)  | 25 | •Students under the Department of Biological Sciences may take Calculus for Life Science 1,2(6).•Differential and Integral Calculus 1,2(8) are recommended to freshmen under the Department of Mathematical Sciences, Statistics, and Physics & Astronomy. |
| Natural Sciences | Must earn more than 12 credits from among the following: Statistics(3), Physics 1,2(or Honor Physics 1,2 or Foundation of Physics 1,2)(6), Physics(3), Chemistry 1,2(or Foundation of Chemistry1,2)(6), Chemistry(3), Biology 1,2(6), Biology(3), Earth and Environmental Sciences(3), Astronomy (3), Atmospheric Science(3), Earth System Science(3), Oceanography(3) (Note that Statistics(3) is required in the Department of Statistics.) | •Courses offered with corresponding lab requirements must be taken concurrently. (Honor Physics1,2(6) must be taken concurrently with Physics Lab. 1,2(2))•Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science |  |  |

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| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Worlds of Knowledge | Language and Literature |  | 12 | •Must earn 12 credits in at least 4 out of 5 areas.•Must complete one of the recom- mended courses, which are indicated with a star (DRW000022144354 ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy. |
| Culture and Art |
| History and Philosophy |
| Politics and Economy |
| Humans and Society |
| Nature and Technology |  |  |  |
| Life and Environment |
| All General Education Courses  |  |  | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Nursing**

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1]College Writing: Process & Structure(3) | 3 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Natural Sciences | [1-1] Chemistry(3), Chemistry Lab.(1)[1-2] Biology(3), Biology Lab.(1) | 8 | •Students taking Chemistry(3), Biology (3) must also take Chemistry Lab. (1), Biology Lab.(1) concurrently.  |
| Worlds of Knowledge | Language and Literature |  | 3 | 3 | •Must complete one of the recom- mended courses, which are indicated with a star (DRW000022144356 ), from either Language and Literature or Culture and Art areas. •Must earn 18 credits in more than 4 areas.  |
| Culture and Art |
| History and Philosophy | Bio-Medical Ethics(3) | 3 |
| Politics and Economy |  | 3 |
| Humans and Society | Invitation to Sociology(3), Introduction to Psychology(3) | 6 |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses  |  | 1-3 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Business Administration**

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1]College Writing: Process & Structure(3), - One course from either Academic Foundations or Worlds of Knowledge (3) | 6 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | Calculus for Business(3), Statistics(3), Statistics Lab.(1) | 7 | •Students taking Statistics must also take Statistics Lab. concurrently.  |
| Worlds of Knowledge | Language and Literature |  | 3 |  |
| Culture and Art |
| History and Philosophy |  | 3 |  |
| Politics and Economy |  | 3 |  |
| Humans and Society |
| Nature and Technology |  | 3 |  |
| Life and Environment |
| General Education Electives | Physical Education | 1 |  |
| All General Education Courses  |  | 4-6 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Engineering (Department of Civil and Environmental Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (45 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] One course from either College Writing: Process & Structure or Writing in Science & Technology  | 3 |  |
| Foreign Languages | [1-1][3-1]2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2  | 12 |  |
| Natural Sciences | [1-1] [1-2] Required electives(16)Must earn 8 credits each semester from among the following: Physics 1․2(or Honor Physics 1․2), Chemistry 1․2, Biology 1․2, Physics, Chemistry, Biology, Earth Science, (Statistics), Physics Lab. 1․2, Chemistry Lab. 1․2, Biology Lab. 1․2, Physics Lab., Chemistry Lab., Biology Lab., Earth Science Lab., (Statistics Lab.)  | 16 | •Students taking Statistics and courses in Natural Sciences must take the corresponding labs concurrently.•Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [2-1] Digital Computer Concept and Practice | 3 |  |

|  |  |
| --- | --- |
| General Education | Credit Requirements (45 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •Must earn 6 credits in at least 2 out of the following 5 areas: Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society.•\* Refer to the information below.  |
| Culture and Art |  | \*(3) |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| General Education Electives | Volunteer Social Service 1 | 1 | •Required for all undergraduates |
| All General Education Courses  |  |  | •Students may select any courses from the list of General Education courses.  |

※ Although (Statistics), (Statistics Lab.) are included in Mathematical Sciences, they are counted towards Natural Sciences credit requirements.

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement) courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

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| --- | --- |
| Courses for Entrepreneurship | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| Courses for Creativity  | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

**□ College of Engineering (Department of Mechanical and Aerospace Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (40 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] College Writing: Process & Structure | 3 |  |
| Foreign Languages | [1-1,2] 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2 | 12 |  |
| Natural Sciences | [Freshmen 1․2] Required electives (12)[1-1] Physics 1(or Honor Physics 1), Physics Lab. 1[1-2] Physics 2(or Honor Physics 2), Physics Lab. 2[1-1,2]Must earn 4 credits from among Chemistry 1․2, Biology 1․2, Chemistry, Biology, (Statistics), Chemistry Lab. 1․2, Biology Lab. 1․2, Chemistry Lab., Biology Lab., (Statistics Lab.) | 12 | •Students taking Statistics and courses in Natural Sciences must take the corresponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [2-1] Digital Computer Concept and Practice | 3 |  |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •Must earn 6 credits in at least 2 out of 5 areas (Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society).•\* Refer to the information below. |
| Culture and Art |  | \*(3) |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ Although (Statistics), (Statistics Lab.) are included in Mathematical Sciences, they are counted towards Natural Sciences credit requirements.

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

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| Courses for Entrepreneurship | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| ‘Courses for Creativity’ | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

**□ College of Engineering (Department of Materials Science and Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (43 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Writing in Science & Technology | 3 |  |
| Foreign Languages | [1-1,2] 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2 | 12 |  |
| Natural Sciences | [1-1,2] Required electives (16)Must earn 8 credits each semester from among the following:: Physics 1․2(or Honor Physics 1․2), Chemistry 1․2, Biology 1․2, Physics, Chemistry, Biology, (Statistics), Physics Lab. 1․2, Chemistry Lab. 1․2, Biology Lab. 1․2, Physics Lab., Chemistry Lab., Biology Lab., (Statistics Lab.)  | 16 | •Students taking Statistics and courses in Natural Sciences must take the corresponding labs concurrently.•Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses.•Must earn 8 credits in 2 semesters by taking either Physics 1,2 or Chemistry 1,2 in sequential order. |
| Computer and Information Science | [1-2] Fundamentals of Computer System | 2 |  |

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| --- | --- |
| General Education | Credit Requirements (43 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •Must earn 6 credits in at least 2 out of 5 areas (Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society).•\* Refer to the information below. |
| Culture and Art |  | \*(3) |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ Although (Statistics), (Statistics Lab.) are included in Mathematical Sciences, they are counted towards Natural Sciences credit requirements.

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

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| Courses for Entrepreneurship | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| Courses for Creativity | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

**□ College of Engineering (Department of Electrical and Computer Engineering)**

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| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] Writing in Science & Technology or College Writing: Process & Structure | 3 |  |
| Foreign Languages | [1-1][3-1] 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1]Calculus 1 or Honor Calculus and Practice 1[1-2]Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2 | 12 |  |
| Natural Sciences | [1-1,2] Required electives(16)- Physics 1․2(or Honor Physics 1․2), Physics Lab. Take 4 credits of 1․2 each semester totaling 8Credits- Must earn 4 credits each semester (total 8 credits) from among the following: Chemistry 1․2, Biology 1․2, Chemistry, Biology, (Statistics), Chemistry Lab. 1․2, Biology Lab. 1․2, Chemistry Lab., Biology Lab., (Statistics Lab.)  | 16 | •Students taking Statistics and courses in Natural Sciences must take the corresponding Labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [1-1] Digital Computer Concept and Practice | 3 |  |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •Must earn 6 credits in at least 2 out of the following 5 areas: Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society.•\* Refer to the information below. |
| Culture and Art |  | \*(3) |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ Although (Statistics), (Statistics Lab.) are included in Mathematical Sciences, they are counted towards Natural Sciences credit requirements.

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

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| Courses for Entrepreneurship | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major)M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| ‘Courses for Creativity’ | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

**□ College of Engineering (Department of Computer Science and Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] One course from either Writing in Science & Technology or College Writing: Process & Structure | 3 |  |
| Foreign Languages | [1-1][3-1] 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[1-2] Engineering Mathematics 1[2-1] Engineering Mathematics 2[2-2] Statistics, Statistics Lab. | 16 | •Students taking Statistics must take the lab concurrently.  |
| Natural Sciences | [1-1][1-2] Required electives(12)- Must earn 8 credits [1-1] and 4 credits [1-2] from among the following: Physics1․2(or Honor Physics 1․2), Chemistry 1․2, Biology 1․2, Physics, Chemistry, Biology, Physics Lab. 1․2, Chemistry Lab. 1․2, Biology Lab. 1․2, Physics Lab., Chemistry Lab., Biology Lab.  | 12 | •It is recommended that students majoring in the Department of Computer Sciences and Engineering take Biology ‘Biology(or Biology 1)' specially designed for their major by the Department of Biological Sciences. •Students taking courses in Natural Sciences must take the corresponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [1-1] Digital Computer Concept and Practice | 3 |  |

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| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •Must earn 6 credits in at least 2 out of 5 areas (Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society).•\* Refer to the information below. |
| Culture and Art |  | \*(3) |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

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| ‘Courses for Entrepreneurship’ | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| ‘Courses for Creativity’ | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

**□ College of Engineering (Department of Chemical and Biological Engineering)**

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| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Writing in Science & Technology | 3 |  |
| Foreign Languages | [1-1,2] 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2  | 12 |  |
| Natural Sciences | [1-1,2] Required electives(16): Four courses in Academic Foundations (16 credits) must be taken from among the following three series of options (8 credits per term).(1) Physics1·2 (or Honor Physics 1․2), Physics Lab. 1·2, Chemistry, Chemistry Lab., Biology, Biology Lab.(2) Chemistry 1·2, Chemistry Lab. 1·2 Physics, Physics Lab., B Biology, Biology Lab. (3) Biology 1·2, Biology Lab. 1·2, Chemistry, Chemistry Lab., Physics, Physics Lab.  | 16 | •Students taking courses in Natural Sciences must take the corres- ponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [1-2] Digital Computer Concept and Practice | 3 |  |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •Must earn 6 credits in at least 2 out of 5 areas (Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society).•\* Refer to the information below. |
| Culture and Art |  | \*(3) |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ For all students who entered in 2013 and before, ‘Principles of Computer System’ can be substituted with ‘Digital Computer Concept and Practice’.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

|  |  |
| --- | --- |
| ‘Courses for Entrepreneurship’ | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| ‘Courses for Creativity’ | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

**□ College of Engineering (Department of Architecture and Architectural Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (40 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] One course from either College Writing: Process & Structure or Writing in Science & Technology | 3 |  |
| Foreign Languages | [1-1,2] 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1]Calculus 1 or Honor Calculus and Practice 1[1-2]Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1 | 9 |  |
| Natural Sciences | [1-1]Physics 1(or Honor Physics 1), Physics Lab. 1[1-1] Statistics, Statistics Lab.[1-1,2] Required electives (4)⦁Must earn 8 credits (including labs) in Physics 1 (or Honor Physics 1) and Statistics.\*Must earn 4 credits in Natural Sciences with the corresponding lab. | 12 | •Students taking a course in Natural Sciences must take the corresponding labs concurrently.•Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. (Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses.) |
| Worlds of Knowledge | Language and Literature |  | 3 |  |
| Culture and Art |  | 3 |
| History and Philosophy |  | 3 |
| Politics and Economy |  | 3 |
| Humans and Society |  |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ Although (Statistics), (Statistics Lab.) are included in Mathematical Sciences, they are counted towards Natural Sciences credit requirements.

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Engineering (Department of Industrial Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (46 or more) |
| Categories | Areas | Required Courses  | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Speech and Debate [1-2] College Writing: Process & Structure[4-2] Writing in Science & Technology | 9 |  |
| Foreign Languages | [1-1,2] 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[2-1] Statistics, Statistics Lab.[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2 | 16 | •Students taking Statistics must take the lab concurrently.  |
| Natural Sciences | [1-1,2] Required electives(8)Must earn 4 credits each semester from among the following: Physics1․2(or Honor Physics 1․2), Chemistry 1․2, Biology 1․2, Physics, Chemistry, Biology, Physics Lab. 1․2, Chemistry Lab. 1․2, Biology Lab. 1․2, Physics Lab., Chemistry Lab., Biology Lab.  | 8 | •Students taking a course in Natural Sciences must take the corres- ponding lab concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [1-1] Digital Computer Concept and Practice | 3 |  |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •[1-2, 2-1] Must earn 6 credits in at least 2 out of 5 areas (Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society).•\* See below. |
| Culture and Art |  | \*(3)[3-1] |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3)[2-2] |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

|  |  |  |
| --- | --- | --- |
| ‘Courses for Entrepreneurship’ | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) | \*[2-2] |
| ‘Courses for Creativity’ | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design | \*[3-1]  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Engineering (Department of Naval Architecture and Ocean Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] One course either from College Writing: Process & Structure or Writing in Science & Technology | 3 |  |
| Foreign Languages | [1-1,2] 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2 | 12 |  |
| Natural Sciences | [1-1,2] Required electives(16)- Must earn 4 credits each semester in Physics1․2(or Honor Physics 1․2), Physics Lab. 1․2, totaling 8 credits. - Must earn 4 credits each semester from among the following: Chemistry 1․2, Biology 1․2, Chemistry, Biology, (Statistics), Earth Science, Oceano- graphy, Chemistry Lab. 1․2, Biology Lab. 1․2, Chemistry Lab., Biology Lab., (Statistics Lab.), Earth Science Lab., Oceanography Lab.  | 16 | •Students taking Statistics or a course in Natural Sciences must take the corresponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [1-1] Digital Computer Concept and Practice | 3 |  |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •Must earn 6 credits in at least 2 out of 5 areas (Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society).•\* Refer to the information below. |
| Culture and Art |  | \*(3) |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ Although (Statistics), (Statistics Lab.) are included in Mathematical Sciences, they are counted towards Natural Sciences credit requirements.

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

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| --- | --- |
| ‘Courses for Entrepreneurship’ | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| ‘Courses for Creativity’ | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Engineering (Department of Energy Resources Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (40 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Writing in Science & Technology | 3 |  |
| Foreign Languages | [1-1,2] 2 courses  | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2 | 12 |  |
| Natural Sciences | [1-1,2] Required electives (12)- Must earn 12 credits from among the following: Physics 1․2(or Honor Physics 1․2), Chemistry1․2, Physics, Chemistry, Earth System Science, Physics Lab. 1․2, Chemistry Lab. 1․2, Physics Lab., Chemistry Lab., Earth System Science Lab.  | 12 | •Students taking a course in Natural Sciences must take the corresponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [1-1] Digital Computer Concept and Practice | 3 |  |

|  |  |
| --- | --- |
| General Education | Credit Requirements (40 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Worlds of Knowledge | Language and Literature |  | 6 |  | •Must earn 6 credits in at least 2 out of 5 areas (Language and Literature, Culture and Art, History and Philosophy, Politics and Economy, Humans and Society).•\* See below |
| Culture and Art |  | \*(3) |
| History and Philosophy |  |  |
| Politics and Economy |  |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

|  |  |
| --- | --- |
| ‘Courses for Entrepreneurship’ | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| ‘Courses for Creativity’ | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Engineering (Department of Nuclear Engineering)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] One course from either Writing in Science & Technology or College Writing: Process & Structure | 3 |  |
| Foreign Languages | [1-1][3-2] 2 courses from among College English 1, College English 2, or Advanced English | 4 | •Must take the English courses according to the TEPS scores upon matriculation.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1[1-2] Calculus 2 or Honor Calculus and Practice 2[2-1] Engineering Mathematics 1[2-2] Engineering Mathematics 2 | 12 |  |
| Natural Sciences | [1-1] Required electives(8)Must earn 8 credits from among the following: Physics1(or Honor Physics1), Chemistry1, Biology 1, Physics Lab. 1, Chemistry Lab. 1, Biology Lab. 1 [1-2] Required electives(8)Must earn 8 credits from among the following: Physics2(or Honor Physics2), Chemistry 2, Biology 2, (Statistics), Physics Lab. 2, Chemistry Lab. 2, Biology Lab. 2, (Statistics Lab.). | 16 | •Students taking Statistics and courses in Natural Sciences must take the corresponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Computer and Information Science | [1-1] Digital Computer Concept and Practice | 3 |  |
| Worlds of Knowledge | Culture and Art |  | \*(3) | •\* Refer to the information below.  |
| History and Philosophy |  | 3 |
| Language and Literature |  | 3 |
| Politics and Economy |  |
| Humans and Society |  | \*(3) |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ Although (Statistics), (Statistics Lab.) are included in Mathematical Sciences, they are counted towards Natural Sciences credit requirements.

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are recognized as fulfilling the minimum credit requirements in Academic Foundations(Computer and Information Science) even when the students did not earn the required credits. Regardless, students must meet the minimum general education credit requirements.

※ Aside from the above General Education requirements, the students entered in 2013 and thereafter must earn 3 credits from both ‘Courses for Entrepreneurship’ and ‘Courses for Creativity’ which are designated by College of Engineering, totaling 6 credits . ‘Courses for Entrepreneurship’ can be substituted with courses in ‘Humans and Society’ from <Worlds of Knowledge>, and the required 3 credits in ‘Courses for Creativity’ can be substituted with courses in ‘Culture and Art’ from <Worlds of Knowledge>. (Students must consult with the department about the requirement)

|  |  |
| --- | --- |
| Courses for Entrepreneurship | (GE) 054.027 Entrepreneurship and Economy (GE) 046.017 Technology and Economy(GE) 054.025 Engineering Ethics and Leadership (GE) 054.028 Patent and Technology Entrepreneurship(Major) 400.212 Technology and Entrepreneurship (Major) 400.025 Modern Technology and Ethical Thinking(Major) 400.513 History of Engineering and Technology(Major) 400.213 Innovation and Creativity Practice(Major) M2177.000100 Management for Engineers(Major) M2177.000700 Engineering Frontiers and Leadership 3(Open ONLY to undergraduate students who entered in 2013, 2014) |
| ‘Courses for Creativity’ | (GE) 054.019 A Glance at Korean Contemporary Urbanism and Architecture(GE) 054.021 Creativity and Design(GE) 054.022 Technology and Art: Exhibit·Art·Engineering (GE) 054.020 The Science of Sound, and Experience of Music Instrument Design and Evaluation(Major) 400.018 Creative Engineering Design(Major) 400.318 Digital Art Engineering(Major) 406.549 Creative Technology Intelligence (Major) 406.324A Creative Thinking for Engineers(Major) M2177.002300 Interdisciplinary Innovative Capstone Design(Major) M2177.002400 Global Innovative Capstone Design |

**□ College of Agriculture and Life Sciences (Department of Agricultural Economics and Rural Development)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] College Writing: Process & Structure(3) | 3 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Worlds of Knowledge | Language and Literature |  | 3 |  |
| Culture and Art |
| History and Philosophy |
| Politics and Economy |  | 3 |  |
| Humans and Society |
| Nature and Technology |  | 3 |  |
| Life and Environment |  | 3 |  |
| All General Education Courses |  | 15-17 | •Students may select any courses from the list of General Education courses.  |

※ Credit requirements in ‘Nature and Technology’ and ‘Life and Environment’ from <Worlds of Knowledge> can be substituted with a course (3 credits) in ‘Nature and Technology’ or ‘Life and Environment’ and a course (3 credits) in ‘Mathematical Sciences’ or ‘Natural Sciences’ from<Academic Foundations>.

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Agriculture and Life Sciences (Excluding Department of Agricultural Economics and Rural Development)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] College Writing: Process & Structure(3) | 3  |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | Take one from among the following:Calculus for Life Science 1·2, Calculus 1·2Honor Calculus and Practice 1·2 | 6 |  |
| Natural Sciences | Take 2 from among the following:Physics(3)·Physics Lab.(1)Chemistry(3)·Chemistry Lab.(1)Biology(3)·Biology Lab.(1)Atmospheric Science(3)·Atmospheric Science Lab.(1)Earth System Science(3)·Earth System Science Lab.(1) | 8 | •Students taking Physics, Chemistry, Biology, Atmospheric Science, Earth System Science must take corresponding labs concurrently.  |
| Worlds of Knowledge | Language and Literature |  | 3 |  |
| Culture and Art |
| History and Philosophy |  | 3 |  |
| Politics and Economy |  | 3 |  |
| Humans and Society |  | 3 |  |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  | 1-3 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

□ College of Fine Arts

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Choose one course  | 3 | •This subject area includes the following courses: College Writing: Process & Structure, Writing in Humanities, Writing in Social Sciences, Writing in Science & Technology |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Worlds of Knowledge | Language and Literature |  | 12 | •Must earn at least 12 credits in more than 4 areas.  |
| Culture and Art |  |
| History and Philosophy |  |
| Politics and Economy |  |
| Humans and Society |  |
| Nature and Technology |  |
| Life and Environment |  |
| All General Education Courses |  | 15-17 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Education (Department of Education, Department of Ethics Education, Department of Korean Language Education, Department of English Education, Department of German Language Education, Department of French Language Education, Department of Social Studies Education, Department of History Education, Department of Geography Education, Department of Physical Education)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] College Writing: Process & Structure(3) | 3 | •Students under Department of Education and Department of Physical Education must select one course from this subject area.  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Worlds of Knowledge | Language and Literature |  | 3 | •Must complete one of the recommended courses, which are indicated with a star (DRW000022144358 ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy.(※Department of Korean Language Education is excluded) |
| Culture and Art |
| History and Philosophy |  | 3 |
| Politics and Economy |  | 3 |  |
| Humans and Society |
| Nature and Technology |  | 3 |  |
| Life and Environment |
| General Education Electives | Must earn 2 credits from among Physical Education courses. | 2 | (※ Department of Physical Education is excluded)  |
| All General Education Courses |  | 13-15 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Education (Department of Mathematics Education)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (37 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] College Writing: Process & Structure(3) | 3 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1(3)[1-2] Calculus 2 or Honor Calculus and Practice 2(3) | 6 |  |
| Natural Sciences | [1-1․2] Must take one course among Physics1ㆍ2(or Honor Physics 1․2), Chemistry 1․2, Biology 1․2, Physics, Chemistry, Biology, Earth Science, and (Statistics) for each semester, | 8 | •Students taking Physics1ㆍ2(or Honor Physics 1․2), Chemistry 1․2, Biology 1․2, Physics, Chemistry, Biology, Earth Science, Statistics must take the corresponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |

|  |  |
| --- | --- |
| General Education | Credit Requirements (37 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Computer and Information Science |  | 2(3) | •Before taking Mathematics Education major courses, students should have a foundation in computer programming; therefore, elementary programming courses are recommended.  |
| Worlds of Knowledge | Language and Literature |  | 3 | •Must complete one of the recommended courses, which are indicated with a star (DRW00002214435a ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy. |
| Culture and Art |
| History and Philosophy |  | 3 |
| Politics and Economy |  | 3 |  |
| Humans and Society |
| Nature and Technology |  | 3 |  |
| Life and Environment |  |  |
| General Education Electives | Must earn 2 credits in Physical Education  | 2 |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are required to earn 2(3) credits in <Academic Foundations>.

※ Although (Statistics), (Statistics Lab.) are included in Mathematical Sciences, they are counted towards Natural Sciences credit requirements.

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Education (Department of Physics Education, Department of Chemistry Education, Department of Biology Education, Department of Earth Science Education)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (38 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] Choose one course  | 3 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Calculus 1 or Honor Calculus and Practice 1(3) | 3 |  |
| Natural Sciences | [1-1․2]Must take 4 courses from among the following: Calculus 2(or Honor Calculus and Practice 2), Physics 1(or Honor Physics 1), Chemistry 1, Biology 1, Earth Science, (Digital Computer Concept and Practice)  | 14(16) | •Students taking Physics1․2(or Honor Physics 1․2), Chemistry 1․2, Biology 1․2, Physics, Chemistry, Biology, Earth Science, Statistics must take the corresponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Worlds of Knowledge | Language and Literature |  | 3 | •Must complete one of the recommended courses, which are indicated with a star (DRW00002214435c ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy. |
| Culture and Art |
| History and Philosophy |  | 3 |

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| --- | --- |
| General Education | Credit Requirements (38 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Worlds of Knowledge | Politics and Economy |  | 3 |  |
| Humans and Society |
| Nature and Technology |  | 3 |  |
| Life and Environment |
| General Education Electives | Must earn 2 credits in Physical Education | 2 |  |
| All General Education Courses  |  |  | •Students may select any courses from the list of General Education courses.  |

※ When students are exempt from taking ‘Fundamentals of Computer System, Digital Computer Concept and Practice’, they are required to earn 2(3) credits in <Academic Foundations>.

※ Although Digital Computer Concept and Practice is included in Computer and Information Science, they are counted towards Natural Sciences credit requirements.

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Human Ecology (Division of Consumer and Child Studies)**

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| --- | --- |
| General Education | Credit Requirements (42 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] College Writing: Process & Structure(3)[2-1] Writing in Social Sciences(3) | 6 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 800 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-2] Statistics(3), Statistics Lab.(1) | 4 | •Students taking Statistics must take Statistics Lab. concurrently.  |
| Worlds of Knowledge | Language and Literature |  | 3 | •Must complete one of the recommended courses, which are indicated with a star (DRW00002214435e ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy. |
| Culture and Art |
| History and Philosophy |  | 3 |
| Politics and Economy |  | 3 |  |
| Humans and Society |
| Nature and Technology |  | 3 |  |
| Life and Environment |
| All General Education Courses |  | 14-16 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Human Ecology (Department of Food and Nutrition)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (40 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] College Writing: Process & Structure(3)[2-1] Writing in Science & Technology(3)[3-1] Speech and Debate(3) | 9 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 800 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Statistics(3), Statistics Lab.(1)[1-2] Must earn 3 or 4 credits from either Calculus for Life Science 1, or Physics(3) and Physics Lab.(1)  | 7(8) | •Students taking Chemistry, Biology, Statistics, Physics must take the corresponding labs concurrently.  |
| Natural Sciences | [1-1] Chemistry(3), Chemistry Lab.(1)[1-1] Biology(3), Biology Lab.(1) | 8 |
| Worlds of Knowledge | Language and Literature |  | 3 | •Must complete one of the recommended courses, which are indicated with a star (DRW000022144360 ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy. |
| Culture and Art |
| History and Philosophy |  | 3 |
| Politics and Economy |  | 3 |  |
| Humans and Society |  | 3 |  |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  |  | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Human Ecology (Department of Textiles, Merchandising and Fashion Design)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (40 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] College Writing: Process & Structure(3)[2-1] Writing in Social Sciences or Writing in Science & Technology(3)[3-1] Speech and Debate(3) | 9 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] Statistics(3), Statistics Lab.(1)[1-2] Must earn 3 or 4 credits from among the followings: Calculus for Life Science 1, or Biology(3) and Biology Lab.(1) | 7(8) | •Students taking Biology, Statistics must take the corresponding labs concurrently. •Students who did not complete Mathematics for science students in highschool may take Calculus for Humanities and Social Sciences 1(3) instead of Calculus for Life Science 1(3).  |
| Natural Sciences | [1-1] Chemistry(3), Chemistry Lab.(1) | 4 |

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| --- | --- |
| General Education | Credit Requirements (40 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Worlds of Knowledge | Language and Literature |  | 3 | •Must complete one of the recommended courses, which are indicated with a star (DRW000022144362 ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy. |
| Culture and Art |
| History and Philosophy |  | 3 |
| Politics and Economy |  | 3 |  |
| Humans and Society |  |
| Nature and Technology |  | 3 |  |
| Life and Environment |  |
| All General Education Courses |  | **1-4** | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Veterinary Medicine (Department of Preliminary Veterinary Medicine)**

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| --- | --- |
| General Education | Credit Requirements (45 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Writing in Science & Technology(3) | 3 |  |
| Foreign Languages | One College English course and one Foreign Language course  | 5 | •Students with a TEPS score of 801 and above upon matriculation must take Advanced English: Presentation. |
| Mathematical Sciences | [1-1․2] Must take either Calculus for Life Science 1 or Calculus for Life Science 2(3) | 3 | •Must consult with the instructor from Department of Preliminary Veterinary Medicine before enrolling in Calculus for Life Science 1 or 2. |
| Natural Sciences | [1-1․2] Must take 2 courses (with labs) from among the following: Physics 1, Physics 2, Chemistry 1, Chemistry 2, Biology 1, Biology 2  | 8 | •Students taking Physics 1, Physics 2, Chemistry 1, Chemistry 2, Biology 1, Biology 2 must take the corresponding labs concurrently. •Students who did not complete Physics 1,2 in high school may take Foundation of Physics 1,2 instead of Physics 1,2. Note that Physics Lab. 1,2 must be taken concurrently with the corresponding courses. |
| Worlds of Knowledge | Language and Literature |  | 6 | •Must complete one of the recommended courses, which are indicated with a star (DRW000022144364 ), from among the following areas: Language and Literature, Culture and Art, or History and Philosophy. |
| Culture and Art |  |
| History and Philosophy |  |
| Politics and Economy |  | 3 |  |
| Humans and Society |  | 3 |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  | 14 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Music**

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Choose one course  | 3 | •This subject area includes the following courses: College Writing: Process & Structure, Writing in Humanities, Writing in Social Sciences, Writing in Science & Technology |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Worlds of Knowledge | Language and Literature |  | 12 | •Must earn at least 12 credits in at least 4 areas. |
| Culture and Art |  |
| History and Philosophy |  |
| Politics and Economy |  |
| Humans and Society |  |
| Nature and Technology |  |
| Life and Environment |  |
| All General Education Courses |  | 15-17 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Medicine (Department of Preliminary Medicine)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (41 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Speech and Debate(3)[1-2] Writing in Science & Technology(3) | 6 |  |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | [1-1] 1 course from among Calculus for Life Science 1, Calculus for Life Science 2, Honor Calculus and Practice 1, Honor Calculus and Practice 2  | 3 | •Students must consult with the instructor from the College of Medicine before enrolling in Calculus for Life Science 1 or 2, and those who have to take Honor Calculus and Practice may take a major course (3 credits) in the Department of Mathematical Sciences instead.  |
| Natural Sciences | [1-1․2] Must take more than 2 courses (with labs) from among the following: Physics 1, Physics 2, Chemistry 1, Chemistry 2, Biology 1, Biology  | 8 | •Students taking Physics 1, Physics 2, Chemistry 1, Chemistry 2, Biology 1, Biology 2 must take the corresponding labs concurrently, and they must consult with the instructor from the College of Medicine before enrolling in those courses. |
| Worlds of Knowledge | Language and Literature |  | 12 | •Must earn at least 12 credits in at least 4 out of 5 areas. |
| Culture and Art |
| History and Philosophy |
| Politics and Economy |
| Humans and Society |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| All General Education Courses |  | 6-8 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ College of Liberal Studies**

|  |  |
| --- | --- |
| General Education | Credit Requirements (36 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-1] Choose one course  | 3 | •This subject area includes the following courses: College Writing: Process & Structure, Writing in Humanities, Writing in Social Sciences, Writing in Science & Technology |
| Foreign Languages | At least 3 courses | 8(9) | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course. •Must take more than two courses in the same foreign language |
| Mathematical Sciences | Must take one course from among the following: Calculus 1, Honor Calculus and Practice 1, Mathematics: The Basics and Applications 1 | 3(4) | •Students already taken Mathematics 2, Integral Calculus and Statistics or equivalent courses cannot take Mathematics: The Basics and Applications 1. |
| Worlds of Knowledge | Language and Literature |  | 6 | •Must take courses in more than 4 areas.  |
| Culture and Art |
| History and Philosophy |
| Politics and Economy |
| Humans and Society |
| Nature and Technology |  | 6 |
| Life and Environment |
| All General Education Courses |  | 8-10 | •Students may select any courses from the list of General Education courses.  |

※ Numbers in brackets indicate semester scheduling recommendations.

**□ School of Dentistry BS/DDS Combined Degree Program (Undergraduate Program)**

|  |  |
| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Academic Foundations | Critical Thinking and Writing | [1-2] Choose one course  | 3 | •This subject area includes the following courses: College Writing: Process & Structure, Writing in Humanities, Writing in Social Sciences, Writing in Science & Technology•Recommended: Writing in Science & Technology |
| Foreign Languages | 2 courses | 4-6 | •Students with a TEPS score of 900 and below upon matriculation must take at least one English course.  |
| Mathematical Sciences | one course | 3 | •Recommended: Calculus for Life Science 1 or Calculus for Life Science 2 |
| Natural Sciences | Physics(including Physics Lab.)Chemistry (including Chemistry Lab.)Biology (including Biology Lab.) | 12 | •Physics1․2, Chemistry 1․2 (Chemistry Lab1․2), or Biology1․2 (Biology Lab 1․2) successfully completed before first semester of 2015 are considered to be equivalent to Physics, Chemistry (including Chemistry Lab.), and Biology (including Biology Lab.) respectively. •Students taking Physics, Chemistry and Biology must take the corresponding Lab classes. |

|  |  |
| --- | --- |
| General Education | Credit Requirements (44 or more) |
| Categories | Areas | Required Courses | Credits | Comments |
| Worlds of Knowledge | Language and Literature |  | 6 | •Must earn 6 credits in more than 2 areas from among Language and Literature, Culture and Art, and Politics and Economy. |
| Culture and Art |
| Politics and Economy |
| History and Philosophy |  | 3 |  |
| Humans and Society |  | 3 |  |
| Nature and Technology |  |  |  |
| Life and Environment |  |  |  |
| General Education Electives | Must take more than 2 Physical Education, Volunteer Social Service 1(1) | 3 |  |
| All General Education Courses |  | 5-7 | •Students may select any courses from the list of General Education courses.  |

※ Students must consult with the academic advisor before enrolling in any courses.

※ Numbers in brackets indicate semester scheduling recommendations.

※ The above requirements are applied to students admitted in and after 2016. Students admitted in or before 2015 are encouraged to follow the above.