

Important Information about the University Core Curriculum for Spring 2023

I. Undergraduate students must complete **37** University Core Curriculum credits before graduation.

1. Students in General Programs and Local Students in International Programs:

Languages (9 credits total: 3 credits for Chinese & 6 credits for English), Physical Education (4 credits total), Service Learning (2 credits total), Information Technology (2 credits), and Elective Core Courses (**20** credits total)

2. International Students in International Programs:

Languages (9 credits total: 6 credits for Mandarin Chinese & 3 credits for Elective English or Second Foreign Languages), Physical Education (4 credits total), Service Learning (2 credits total), Information Technology (2 credits), and Elective Core Courses (**20** credits total)

II. Elective Core Courses

1. Students must complete **20** credits total for Elective Core Courses, including Required Elective Core Courses and Recognized Elective Core Courses.

2. Required Elective Core Courses consist of the following three academic categories:

- (1) Rational Thinking
- (2) Cultural Literacy
- (3) Local Commitment

3. Students should take at least one Required Elective Core Course in each of the three categories.

4. The remaining Elective Core Course credits may be from the following two kinds of “Recognized Elective Core Courses”:

- (1) Courses with codes beginning with “GC”
- (2) College foundational courses or department core and specialized courses offered outside of students’ major departments or programs*

* For students of non-Education departments who are in the Pre-service Teacher Education Programs for Elementary or Secondary Education, the Teacher Education credits earned from the courses offered by the Center for Teacher Education cannot count toward the University Core Curriculum credits unless they abandon the qualification as pre-service teachers, and such abandonment is officially confirmed by the Center for Teacher Education.

5. Students in International Programs may take a maximum of 20 credits of English-taught courses offered at NDHU to fulfill the Elective Core Course Requirement after completing all the required professional and specialized course credits of their enrolled programs.

Note: Undergraduate students enrolled before Fall 2017 who choose to apply to a newer version of the University Core Curriculum Requirements should take at least one course from each of the three Required Elective Core Course categories and also Recognized Elective Core Courses, including (1) courses with codes beginning with “GC,” and (2) college foundational courses or department core and specialized courses offered outside of students’ major departments or programs to meet 20 credits of the Elective Core Course requirement. In addition, a 2-credit “Information Technology” course is required. Also, please consult the General Education regulations to make sure if a course taken can count toward the major or program course requirements; a course taken that does not count toward the University Core Curriculum course credits will still be included in the total course credits completed upon graduation. And since credits of the Pre-service Teacher Education Program for Elementary or Secondary Education from courses offered by the Center for Teacher Education do not count toward the course credit requirements for graduation, they cannot count toward the course requirements for the General Education/University Core Curriculum.

III. Chinese Courses

1. Students in General Programs and Local Students in International Programs:

“Chinese Language Ability and Education” (3 credits) in the first study year

2. International Students in International Programs:

Mandarin Chinese (6 credits total)

3. Non-Chinese or non-Sinophone Literature major students who are eligible for a waiver of the required “Chinese Language Ability and Education” course may submit a waiver request and be granted 3 credits. For the details of the waiver qualifications and regulations, please refer to the NDHU Undergraduate Guidelines for Required Core Course Waivers.

1. “Chinese Language Ability and Education,” required for first-year undergraduate students, is automatically assigned to students since Fall 2015. Fall Semester: students of Management, Education, Indigenous Studies, Environmental Studies, and Arts and Undergraduate Degree Program of Rift Valley Interdisciplinary Shuyuan Spring Semester: students of Humanities and Social Sciences and Science and Engineering.

2. Non-Chinese or non-Sinophone Literature major students who are eligible for a waiver of the required “Chinese Language Ability and Education” course may submit a waiver request and be granted 3 credits. For the details of the waiver qualifications and regulations, please refer to the NDHU Undergraduate Guidelines for Required Core Course Waivers.

IV. English Courses

1. Students in General Programs and Local Students in International Programs:

- (1) English Major Students: English Listening and Oral Training I, and II (3 credits each).
- (2) Non-English Major Students: “Online English Learning,” “English Communications,” and “English Reading and Writing” (2 credits each) according to the English levels of individual students.
- (3) In addition to the three required English Core Courses, students should also fulfill the Graduation Requirement for English Language Proficiency. Non-English major students who are eligible for a waiver of the required English Core Courses may submit a waiver request. If the request is approved, the students may be granted the 6 required English Core Course credits and deemed as fulfilling the Graduation Requirement for English Language Proficiency. For the details of the waiver policy and procedures, please refer to the NDHU Undergraduate Guidelines for Required Core Course Waivers.

2. International Students in International Programs:

Elective English courses or Second Foreign Languages (3 credits total)

3. English Levels of Students and English Courses:

(1) Upon enrollment, general undergraduate students’ levels of English, from basic to advanced, are divided into Level 1, Level 2, and Level 3 based on their results of the English subject of the General Scholastic Ability Test. Students need to take the three required English Core courses (6 credits/hours total) according to their respective English levels: “Online English Learning” (2 credits/hours), “English Communications,” and “English Reading and Writing.”

(2) In addition to the 6 credits of the required English Core courses, general undergraduate students also need to pass any one of the accepted English proficiency tests and have their passing results registered by the Language Center to meet the University Graduation Requirement of English Proficiency.

(3) General undergraduate students who do not pass an accepted English proficiency test, to meet the University Graduation Requirement of English Proficiency, may take two additional English courses (4-6 credits total) from the following types of courses: required English Core courses (of higher levels), Elective English courses, English-taught courses offered by individual colleges, departments, or programs that are recognized by the Language Center. However, the two additional English courses, which will count toward the total

graduation course credits, do not count toward the University Core Curriculum credits. Please refer to the list of accepted additional English courses announced by the Language Center.

- (4) General undergraduate students who passed an accepted English proficiency test during their course-taking period or within two years before their enrollment may have their results registered by the Language Center and take required English Core courses or elective Language courses to meet the Language credit requirement (6 credits total).
- (5) The Campus English Proficiency Practice Test held by the Language Center in every semester is an accepted English proficiency test, and a passing result of the test can be used to meet the University Graduation Requirement of English Proficiency. The fees for the Campus English Proficiency Practice Test are decided by the Language Center.
- (6) Non-English major students who meet any one of the conditions for the English Course Waiver may apply for waiving the required English Core course credits (6 credits total). Students whose waiver applications are approved are accredited to meet the University Graduation Requirement of English Proficiency and granted the required English Core course credits (6 credits total). To apply for the waiver, please refer to the University Required Undergraduate Core Course Transfer and Waiver Guidelines.
- (7) Individual departments and programs may set out a higher graduation requirement of English proficiency for their students. Overseas Chinese students will take an English classification test arranged by the Office of International Affairs and administered by the Language Center. Students with disabilities, with the guidance of the Psychological Counseling Center, may take special English courses offered by the Language Center.

V. Physical Education

1. Undergraduate Students should complete “Physical Education I,” “Physical Education II,” “Physical Education III,” and “Physical Education IV” (1 credit for each) before graduation; “Physical Education I” and “Physical Education II” should be taken respectively in the two semesters of the first study year. In addition, students need to pass the Physical Fitness Test before graduation. For information about acceptable test performance standards, please refer to the Physical Education Course Regulations by the Physical Education Center.
2. Students of Physical Education and Kinesiology need to take any four skill subject courses offered by the Department to fulfill the required credits for Physical Education.

Note: Starting Fall 2014, Physical Education courses for first-year students are automatically assigned. Also, starting Spring 2018, to prevent in each Physical Education class from abnormal change in the number of students and student attendance not following the original assignment, “Physical Education I” and “Physical Education II” cannot be added or dropped online; second-year and above students, transfer students, and resuming students may still add these two courses during the Additional Course-Add period. As for other Physical Education courses (“Physical Education III” and “Physical Education IV”), students may choose only one course during the Preliminary Course Selection period and more than one later during the Course Add/Drop period. In addition, Physical Education courses have their venue conditions and concerns for safety. Students are strongly advised to attend the first meeting of a course and read the course plan and syllabus carefully.

VI. Service Learning

1. Students must complete Service Learning I and II sequentially before graduation. “Service Learning I” should be taken from students’ major departments. “Service Learning II” may be taken from either students’ major departments or other departments; for the latter case, students should consult with their major departments or programs on the eligibility for credit recognition.
2. “Service Learning I” and “Service Learning II” are 1 credit each since Fall 2013.
3. Students enrolled before Fall 2013 may choose to switch to the current University Core Curriculum Requirements. The previous 0-credit “Service Learning” taken can be recognized and count toward the new 1-credit Service Learning. The remaining required credits may be fulfilled with other University Core Courses.

VII. Information Technology

Please refer to the NDHU Implementation Regulations of Computer Programming Competence Requirement for Graduation for Undergraduate Students. Students who are eligible for a waiver of the required Information Technology course may submit a waiver request and be granted 2 credits.

1. Based on their respective majors, undergraduate students are divided into Fundamental (students whose majors are not in Science, Engineering, or Information Management) and Advanced (students majoring in Science, Engineering, and Information management) Levels. Students may choose one Information Technology course (2 credits) according to their levels; apply for credit transfer with related courses in Information Technology taken (please see the list of recognized courses by the General Education Center); or request a course waiver and be granted the course credits (2 credits) by attending recognized competitions, certifications, or examinations (including those held by NDHU).

2. Students majoring in Science and Engineering (except for those majoring in Computer Science & Information Engineering, Electrical Engineering, Applied Mathematics, and Information Management) need to take "Intermediate Computer Programming" offered by the General Education Center or its related courses as listed in the Attachment; "Fundamental Computer Programming" cannot count toward the University Core Curriculum credits. Students of non-Science and Engineering majors need to take "Fundamental Computer Programming" offered by the General Education Center or its related courses as listed in the Attachment. Students majoring in Computer Science & Information Engineering, Electrical Engineering, Applied Mathematics, and Information Management need to take Information Technology related courses offered by respective departments to meet the required Information Technology course credits; Computer Programming courses taken that are offered by the General Education Center cannot count toward the University Core credits.

VIII. Credit recognition of the University Core Courses taken related to the departments' professional and specialized areas will be determined by the Curriculum Committees of individual departments/programs and colleges.

IX. Cross-campus distance courses are counted toward the Recognized Elective Core Course credits. Please refer to the latest course list provided by the General Education Center in every semester.

X. Students may decide for themselves the most applicable version of the University Core Curriculum Requirements to count course credits toward graduation in the first semester of their final study year. The selected version of requirements does not have to be of the same version-year as that of the course requirement of students' majors.

In principle, a University Core course must have a minimum of 20 students registered after the Course Add/Drop Period. Please follow the General Education Center announcements regarding additional course offering or course cancellation before or after a semester begins. Students are strongly advised to attend the first meeting of a course and read the course plan and syllabus (also the additional note) carefully. And please be prudent when arranging your course schedules. **Since Fall 2016, the General Education Center no longer accepts and approves any requests to drop courses during the Additional Course Add period.** Please check the General Education Center website and follow the Office of Academic Affairs for related information and regulations about the University Core courses.

XI. The following English-taught University Core courses are NOT recognized as Additional Courses for the English Requirement for Graduation since Spring 2019. Please pay attention when choosing Additional Courses for the English Requirement for Graduation. For the list of courses eligible as Additional Courses for the English Requirement for Graduation, please consult the website of the Language Center.

Course Code	Course Title
GC__B0060	Piano Playing and Music Appreciation
GC__17900	Introduction to Finance
GC__63160	Introduction to Economic Theory
GC__64680	Introduction to Chinese Calligraphy and Practice
GC__44700	Global Change and Sustainable Development

Recognized Information Technology Related Professional & Specialized Courses from Individual Departments (Academic Year 2023)

Department	Course Code	Course Title	Credits/Hours	Note
Applied Mathematics	CSIE10400	Introduction to Computer Programming (I)	3/3	In collaboration with the CSIE Dept.
	AM__11600	Software Implementations and Computation	3/3	
	AM__11700	Software Implementations and Computation Experiments	1/3	
	CSIE20000	Data Structures	3/3	In collaboration with the CSIE Dept.
	CSIE10500	Introduction to Computer Programming (II)	3/3	In collaboration with the CSIE Dept.
	CSIE20500	Algorithm Design and Analysis	3/3	In collaboration with the CSIE Dept.
Physics	APH_50200	Computational Physics (I)	3/3	
	APH_51100	Computational Physics (II)	3/3	
	PHYS31100	Experimental Techniques in Physics (I)	3/3	
	PHYS21240	Physics (Python for Physics) I	3/3	
	PHYS21250	Physics (Python for Physics) II	3/3	
Chemistry	CHEM53800	Computational Chemistry	3/3	<ol style="list-style-type: none"> 1. GE Courses: Intermediate Computer Programming courses 2. Chemistry Dept.: Computational Chemistry 3. Fundamental Program of EE and CS: Introduction to Computer Programming (I) 4. IM Dept.: Web Programming and other Computer Programming related courses by the CSIE Dept.
	CHEM21800	Introduction to Structural Bioinformatics	3/3	
Life Science	LF__33470	Bioinformatics analysis	3/3	<ol style="list-style-type: none"> 1. GE Courses: Intermediate Computer Programming courses 2. Fundamental Program of EE and CS: Introduction to Computer Programming (I) 3. IM Dept.: Web Programming and other Computer Programming related courses by the CSIE Dept.
Electrical Engineering	CSIE10400	Introduction to Computer Programming (I)	3/3	In collaboration with the CSIE Dept.
Computer Science and Information Technology	CSIE10400	Introduction to Computer Programming (I)	3/3	General Program
	CSIEB0020	Introduction to Computer Programming (I)	3/3	International Program (English-taught course)
Opto-Electronic Engineering	OE__10390	Digital Design	3/3	
	OE__10350	Numerical analysis and calculation for Opto-electronics	3/3	
	OE__10400	Electro-Optical Engineering Digital Drawing	3/3	

Materials Science and Engineering	Students of Materials Science and Engineering should take “Intermediate Programming for Computational Materials Science” and “Intermediate Computer Programming” offered by the General Education Center.			
Information Management	IM__11200	Program Design	3/3	
	IM__11300	Advanced Program Design	3/3	
Natural Resources and Environmental Studies	NRES__20230	Fundamental Computer Programming–R Language	3/3	
Special Education	SPE__22520	The Development and Application of SMART Communication System	2/2	

Description:

1. Starting Fall 2017, undergraduate students need to take required Information Technology course (2 credits) to meet the University Core Requirements. Students of Science and Engineering (except for those of CSIE, EE, and AM) should take Intermediate Computer Programming courses offered by the General Education Center or other Intermediate Computer Programming-related courses in the table above; students other than Science, Engineering, and IM should take Fundamental Computer Programming courses offered by the General Education Center or other related courses in the table above. However, the Information Technology course credits fulfilled by credit transfer from any of the courses not offered by the General Education Center, as listed in the aforementioned tables, will not count toward the University Core, whose credit requirements need to be satisfied by other eligible General Education courses.

2. Students of CSIE, EE, AM, and IM should take required Information Technology-related courses offered by their respective departments to fulfill the Information Technology credits of the University Core Requirements; the credits fulfilled by credit transfer from such courses will not count toward the University Core, whose credit requirements need to be satisfied by other eligible General Education courses. Computer Programming courses taken that are offered by the General Education Center cannot count toward the University Core Curriculum credits.

University Core Curriculum

(37 credits)

Languages

(9 credits)

✧ Chinese (3 or 6 credits)

- * Chinese Language Ability and Education
- * Mandarin Chinese

✧ English (6 or 3 credits)

- * Online English Learning
- * English Communications
- * English Reading and Writing
- * Elective English or Second Foreign Languages

Students also need to meet the English Proficiency Graduation Requirements.

Information Technology

(2 credits)

✧ Fundamental Computer Programming

✧ Intermediate Computer Programming

Physical Education

(4 credits)

✧ PE I

✧ PE II

✧ PE III

✧ PE IV

(4 credits total)

Students also need to pass the Physical Fitness Test before graduation.

■ Military Education (Non-required)

- * All-out Defense Education Military Training

Service Learning

(2 credits)

✧ Service Learning I (Taken from students' major depts. or programs)

✧ Service Learning II (Taken from or outside of students' major depts. or programs)

Credit recognition is decided by students' major depts. or programs when taken outside.

Elective Core Courses

(20 credits)

At least 1 course from each of 3 Academic Categories & Recognized Electives

Required Elective Core Categories

- ✧ Rational Thinking
- ✧ Cultural Literacy
- ✧ Local Commitment

Recognized Electives

- ✧ "GC" Courses
- ✧ College Foundational Courses or Department Core & Specialized Courses Outside of Students' Major Depts. or Programs

