

Recommended Course Sequence

The number of credits you take each year will determine when you graduate. To graduate on time, you are strongly encouraged to enroll in at least 30 credits toward your degree during the calendar year, including fall and spring semesters and winter and summer sessions.

A.S. Degree in Liberal Arts and Sciences (Mathematics and Science) Generic - Catalog Year 2018-19

Fall Semester #1

Courses	Credits	Pre-requisites and co-requisites
ENGL-101 English Composition I (Required Core 1.A. – English Composition)	3	Pre-req.: BE-112/205 and 122/226 or passing score on CUNY placement, or exemption
MA 440 Pre-Calculus (or higher level) (Required Core 1.B. Mathematical and Quantitative Reasoning)	4	Pre-req.: MA 119 & 121 or placement on mathematics exam
REQUIRED CORE: I. C: Life & Physical Sciences - Required: BI-201, CH-151, PH-301 or PH-311, or PH-411 or PH-401	4-4.5	Pre-req. for BI 201: BE-112/205 and 122/226 or passing score on CUNY placement, or exemption; Pre-req. for CH 151 and PH 301: MA 119 & 121 or placement on mathematics exam; Pre-req. for PH 401 and 411: MA 440: Pre-req. for PH 311: MA 441
HE 101 Introduction to Health Ed. OR HE 102 Health, Behavior and Society	1-2	
FLEXIBLE CORE*: one course from II. A.: World Cultures & Global Issues OR II. B. US in its Diversity OR II.C. Creative Expression OR II.D. Individual and Society	3	Check pre-requisites and co-requisites for individual courses
Total credits for the term	15 – 16.5	

Spring Semester #1

Courses	Credits	Pre-requisites and co-requisites
ENGL-102 English Composition II (Required Core 1.A. – English Composition)	3	Pre-req.: ENGL-101 or placement
MA-441 Analytical Geometry and Calculus I (or higher)	4	Pre-req.: MA-440 Pre-Calculus
FLEXIBLE CORE: 2. E: Scientific World: Select one from BI-201, CH-151 (or higher), MA-443, MA-451, MA-461, CS-101, CS-201, CS-203, CS-204, PH-301 or PH-311, PH-411 or PH-401	4-4.5	Check individual course pre-requisites and co-requisites
Major: Select one from BI-202, BI-356, BI-453, CH-152 (or higher), CS-204, PH-302 or PH-312, or PH-412 and PH-413 (student may not receive credit for both PH 302 or PH-312 and combination of PH-412 and PH-413), MA-442 (or higher)	4-4.5	Check individual course pre-requisites and co-requisites
Total credits for the term	15 - 16	

Fall Semester #2

Courses	Credits	Pre-requisites and co-requisites
FLEXIBLE CORE: II: A, B, C, D or E: Select one from BI-201, CH-151 (or higher), MA-443, MA-451, MA-461, CS-101, CS-201, CS-203, CS-204, PH-301 or PH-311, PH-411 or PH-401	4-4.5	Check individual course pre-requisites and co-requisites
Major: Select one from BI-202, CH-152 (or higher), CS-101(or higher), MA-442 (or higher level), PH-302 or PH-312, or PH-412 and PH-413 (student may not receive credit for both PH-302 or PH-312 and combination of PH-412 and PH-413)	4-4.5	Check individual course pre-requisites and co-requisites
FLEXIBLE CORE*: one course from II. A.: World Cultures & Global Issues OR II. B. US in its Diversity OR II.C. Creative Expression OR II.D. Individual and Society	3	Check pre-requisites and co-requisites for individual courses
FLEXIBLE CORE*: one course from II. A.: World Cultures & Global Issues OR II. B. US in its Diversity OR II.C. Creative Expression OR II.D. Individual and Society	3	Check pre-requisites and co-requisites for individual courses
Total credits for the term	14 - 15	

Spring Semester #2

Courses	Credits	Pre-requisites and co-requisites
Concentration course(s) 3-6 credits. See notes below.	3-6	Check individual course pre-requisites and co-requisites
SP211 Speech Communication (if SP-211 already taken in common core, additional Concentration course recommended)	3	Check course pre-requisites and co-requisites
FLEXIBLE CORE*: one course from II. A.: World Cultures & Global Issues OR II. B. US in its Diversity OR II.C. Creative Expression OR II.D. Individual and Society	3	Check individual course pre-requisites and co-requisites
History or Social Science course (if taken in Common Core, additional concentration course	3	Check individual course pre-requisites and co-requisites
One course from PE 400 and 500 series or DAN 100 series	1	none
Total credits for the term	13 – 16	
Total Credits required for the AS in Liberal Arts and Sciences (Mathematics and Science) - Generic	60	

Notes:

- All students must complete two (2) WI designated classes to fulfill degree requirements.
- *Students should select one course from each of the four flexible core course categories: A, B, C, and D.
- Students who do not place into MA-440 (Pre-Calculus) will need to take pre-requisite credit courses, indicated above, which do not count toward the program requirements.
- ADVISEMENT NOTE: Students must take *at least one two-course sequence in each of two different disciplines* (for example, BI 201, 202; CH 151, 152; PH 301, 302, CS 101, 201 or 203 or 204; MA 441, 442). Students should select courses that will best prepare them for the majors they intend to pursue in Baccalaureate programs.
- Students taking a calculus physics sequence may select from Calculus Physics I, II, and III (PH 411, 412, 413, 10 credits total) or the new General Calculus Physics A, B (5 credits each, courses are currently numbered PH 401, 402). See department for more information.
- The following courses are gateway major courses for Biology majors across CUNY: BI 201, BI 202, CH 151, and MA 440.
- Students following the AS Liberal Arts and Science (Math and Science) concentration may not apply the following courses toward their concentration: Biology- BI 110, 115, 120, 130, 131, 132, 140, 160, 170, 171, 250, 340, 341, 505; Chemistry- CH 101, 102, 105, 110, 111, 120, 121, 127, 128, 130, 131; Geology- GE 100, 105, 125; Mathematics and Computer Science- MA 114, 119, 120, 121, 301, 303, 321, 260, 261; Physics- PH 101, 102, 103, 104, 110, 111, 112, 120, 121, 123, 124, 129, 130, 131, 133, 140, 150, 151
- INDICATE IF ANY COURSES ARE ONLY OFFERED IN FALL OR SPRING TERMS.