

# ASSOCIATE OF SCIENCE DEGREE

Degree candidates at Cuyahoga Community College must be in good standing. An Associate of Science degree will be granted to the student completing the following requirements.

## Comprehensive Graduation Requirements

The Associate of Science degree prepares students to continue their education at the bachelor's degree level. When selecting courses for this degree, students should select courses according to the requirements of their intended transfer destination school and major. Undecided students may use the state-approved Transfer Module as a general guide for transferability.

The following degree requirements are intended to ensure that students with an Associate of Science degree have completed the first two years of a baccalaureate degree.

1. The satisfactory completion of 60 semester credit hours at the 1000-level or higher. No more than 3 of the 60 credits can be completed in physical education.
2. The achievement of a minimum overall grade point average of 2.00 for all courses attempted at Cuyahoga Community College (with exceptions as provided under College policies for repeating a course, Grade Forgiveness and Fresh Start).
3. The completion of a minimum of 12 credits of advanced coursework (exclusive 1800-level special topics and independent study/research courses) of the 60 semester credits. Advanced coursework is defined as follows: 2000-level courses, MATH-1400 level and above, BIO-1500 level and above, CHEM-1300 level and above, and PHYS-1200 level and above.
4. The completion of no fewer than 20 of the required 60 semester hours at the 1000-level or higher while in attendance at Cuyahoga Community College.
5. Special Topics, Independent Study/Research, and Cooperative Education courses may be applied to the general education and elective graduation requirements unless otherwise noted.

## First Year Experience

All new, credit-earning students are required to satisfactorily complete the GEN-1070 First Year Experience course. Students are expected to take the First Year Experience course during their first semester of enrollment.

Returning, Transfer, and current College Credit Plus Students are not required to take GEN-1070

- GEN-1070 First Year Success Seminar

Upon recommendation from a counselor, GEN-1022 Strategies for Success or GEN-1040 Career Exploration may be taken in place of GEN-1070 First Year Success Seminar. Learn more about the First Year Experience.

## General Education Requirements

Each of the College's degree programs require that students complete a set amount of courses in the areas of general education that include: Communication, Mathematics and Data Analysis, Natural and Physical Sciences, Arts and Humanities, and Social and Behavioral Sciences. Students completing the general education requirements, along with

the specific program requirements for a degree, will have achieved the College's general education outcomes.

### Communication (6 semester credits)

The communication skills of reading analytically, writing fluently, listening critically and speaking articulately are essential. Students must complete the following to meet this requirement:

- ENG-1010 College Composition I or ENG-101H Honors College Composition I<sup>1</sup>
- ENG-1020 College Composition II or ENG-102H Honors College Composition II or ENG-2151 Technical Writing

<sup>1</sup> Students who transfer in credits for ENG-1020 without having credit for ENG-1010 will have ENG-1010 waived, but the required 6 hours in Communication must be earned. COMM-1010 Fundamentals of Speech Communication or COMM-101H Honors Speech Communication can fulfill the Communication requirement for students who have had ENG-1010 waived.

### Mathematics and Data Analysis (6 semester credits)

The ability to integrate numerical, symbolical, and spatial methods for scientific inquiry into the physical, natural, or social and behavioral sciences is essential. Students must complete the following to meet this requirement:

- Six (6) semester credits selected from the following courses (MATH-1400 level or higher):

Code	Title	Credit Hours
MATH-1410	Elementary Probability and Statistics I	3
MATH-1420	Elementary Probability and Statistics II	3
MATH-1470	Modern Mathematics for Business and Social Science I	4
MATH-1480	Modern Mathematics for Business and Social Sciences II	4
MATH-1490	Business Probability and Statistics I	3
MATH-1500	Business Probability and Statistics II	3
MATH-1530	College Algebra	4
MATH-153H	Honors College Algebra	4
MATH-1540	Trigonometry	3
MATH-154H	Honors Trigonometry	3
MATH-1580	Precalculus	5
MATH-1610	Calculus I	5
MATH-161H	Honors Calculus I	5
MATH-1620	Calculus II	5
MATH-162H	Honors Calculus II	5
MATH-2010	Introduction to Discrete Mathematics	4
MATH-2310	Calculus III	4
MATH-231H	Honors Calculus III	4
MATH-2410	Introduction to Linear Algebra	3
MATH-2520	Differential Equations	3

### Natural and Physical Sciences (15 semester credits)

The ability to undertake scientific inquiry in the physical and biological sciences is essential for students seeking an Associate of Science degree. Students must complete the following to meet this requirement:

- Fifteen (15) semester credits selected from the following courses.  
Must include two (2) laboratory experiences:

Code	Title	Credit Hours
ANTH-1210	Human Evolution	4
<b>Biology</b>		
BIO-1040	The Cell and DNA	3
BIO-104L	The Cell and DNA Laboratory	1
BIO-1050	Human Biology	3
BIO-105L	Human Biology Laboratory	1
BIO-1060	Environment, Ecology, and Evolution	3
BIO-106L	Environment, Ecology, & Evolution Laboratory	1
BIO-1100	Introduction to Biological Chemistry	3
BIO-1410	Anatomy & Physiology of Domestic Animals I	4
BIO-1420	Anatomy & Physiology of Domestic Animals II	3
BIO-1500	Principles of Biology I	4
BIO-150H	Honors Principles of Biology I	4
BIO-1510	Principles of Biology II	4
BIO-2060	Principles of Genetics	3
BIO-2500	Microbiology	4
<b>Chemistry</b>		
CHEM-1000	Everyday Chemistry	3
CHEM-100L	Everyday Chemistry Laboratory	1
CHEM-1010	Introduction to Inorganic Chemistry	4
CHEM-101H	Honors Introduction to Inorganic Chemistry	4
CHEM-1020	Introduction to Organic Chemistry and Biochemistry	4
CHEM-102H	Honors Introduction to Organic Chemistry and Biochemistry	4
CHEM-1300	General Chemistry I	4
CHEM-130L	General Chemistry Laboratory I	1
CHEM-130H	Honors General Chemistry I	5
CHEM-1310	General Chemistry II	4
CHEM-131L	General Chemistry Laboratory II	1
CHEM-131H	Honors General Chemistry II	5
<b>Earth Science</b>		
ESCI-1030	Earth	3
ESCI-103L	Earth Laboratory	1
ESCI-1050	Introduction to Ocean Studies	3
ESCI-1310	Physical Geography	3
ESCI-131L	Lab in Physical Geography	1
ESCI-1410	Physical Geology	3
ESCI-141H	Honors Physical Geology	3
ESCI-141L	Lab in Physical Geology	1
ESCI-1510	Historical Geology	3
ESCI-151L	Lab in Historical Geology	1
ESCI-1610	Geology of the National Parks	3
ESCI-161L	Lab in Geology of the National Parks	1
<b>Physics</b>		
PHYS-1010	Astronomy	3

PHYS-101L	Astronomy Laboratory	1
PHYS-1050	Everyday Physics	2
PHYS-1210	College Physics I	4
PHYS-1220	College Physics II	4
PHYS-2310	General Physics I	5
PHYS-2320	General Physics II	5

## Social and Behavioral Sciences (6 semester credits)

The opportunity to obtain a broader knowledge of the social and behavioral sciences in order to understand, analyze, and describe aspects of human behavior from diverse political, social, historical, and cultural perspectives is an important part of a liberal arts education. Students must complete the following to meet this requirement:

- Six (6) semester credits selected from the following courses, must be selected from two disciplines:

Code	Title	Credit Hours
<b>Anthropology</b>		
ANTH-1010	Cultural Anthropology	3
ANTH-2010	Peoples and Cultures of the World	3
ANTH-2030	Archaeological Field Methods	4
ANTH-2110	Archaeology	3
<b>Economics</b>		
ECON-1210	Survey of Economics	3
ECON-2000	Principles of Microeconomics	3
ECON-2010	Principles of Macroeconomics	3
<b>Geography</b>		
GEOG-1000	Introduction to Geography	3
GEOG-1010	World Regional Geography	3
GEOG-1050	Africans in the Americas	3
GEOG-1510	Regional Geography of the United States and Canada	3
GEOG-2030	Environmental Geography	3
<b>History</b>		
HIST-1010	History of Civilization I	3
HIST-101H	Honors History of Civilization I	3
HIST-1020	History of Civilization II	3
HIST-102H	Honors History of Civilization II	3
HIST-1510	United States History to 1877	3
HIST-151H	Honors United States History to 1877	3
HIST-1520	United States History Since 1877	3
HIST-152H	Honors United States History since 1877	3
HIST-1630	History of Immigration in America	3
HIST-1700	History of Africa	3
HIST-2070	African American Women-History	3
HIST-2150	African American History to 1877	3
HIST-2160	African American History 1877-present	3
HIST-2660	Women in American History	3
<b>Political Science</b>		
POL-1010	American National Government	3
POL-101H	Honors American National Government	3
POL-1020	State & Local Government	3

POL-2020	Introduction to Conflict and Peace Studies	3
POL-2030	Comparative Politics	3
POL-2060	Political Systems of Africa	3
POL-2070	International Relations	3
POL-2100	Constitutional Law	3
POL-2120	Women and Politics	3
<b>Psychology</b>		
PSY-1010	General Psychology	3
PSY-101H	Honors General Psychology	3
PSY-1050	Introduction to Industrial/Organizational Psychology	3
PSY-2010	Child Growth and Development	3
PSY-2020	Life Span Development	4
PSY-2040	Social Psychology	3
PSY-2050	Psychology of Personality	3
PSY-2060	Adolescent Psychology	3
PSY-2080	Abnormal Psychology	3
PSY-2100	Introduction to Aging	3
PSY-2110	Educational Psychology	3
<b>Sociology</b>		
SOC-1010	Introductory Sociology	3
SOC-101H	Honors Introductory Sociology	3
SOC-1020	Social Institutions	3
SOC-2010	Social Problems	3
SOC-201H	Honors Social Problems	3
SOC-2020	Sociology of the Family	3
SOC-2100	Aging and Society	3
SOC-2110	Death and Dying	3
SOC-2160	Introduction to Criminology	3
SOC-2310	Contemporary American Black-White Relations	3
SOC-2410	Sociology of Gender	3
SOC-2510	Urban Sociology	3
<b>Urban Studies</b>		
UST-1010	Introduction to Urban Studies	3
UST-1020		3
UST-2020	Urban Cultures	3
UST-2070	Urban Politics	3
UST-2640	American Urban History	3
<b>Women's Studies</b>		
WST-1510	Introduction to Women's Studies	3
WST-2010	Women in the World	3
WST-2120	Women and Politics	3

<sup>1</sup> ANTH-1210 Human Evolution cannot be used towards the Social and Behavioral Sciences Requirement.

## Arts and Humanities (6 semester credits)

The appreciation of the achievements of the arts and humanities provides the ability to integrate learning within a complex global perspective; to gain an awareness of and respect for different cultures; and to integrate ethical decision making in dealing responsibly with personal, family and

community issues. Students must complete the following to meet this requirement:

- Six (6) semester credits selected from the following courses, must be selected from at least two disciplines.

Code	Title	Credit Hours
<b>Art</b>		
ART-1010	Art Appreciation	3
ART-1040	Survey of Non-Western Art	3
ART-2020	Art History Survey: Prehistoric to Renaissance	3
ART-2030	Art History Survey: Late Renaissance to Present	3
<b>Dance</b>		
DANC-1100	Dance Appreciation	3
<b>English 2000-level literature courses</b>		
ENG-2310	American Literature I	3
ENG-2320	American Literature II	3
ENG-2350	British Literature I	3
ENG-2360	British Literature II	3
ENG-2410	Introduction to Literature: Poetry	3
ENG-2420	Introduction to Literature: Fiction	3
ENG-2430	Introduction to Literature: Drama	3
ENG-2510	African-American Literature I	3
ENG-2520	African-American Literature II	3
ENG-2601	Literature for Children and Adolescents	3
ENG-2700	World Literature	3
ENG-2710	Shakespeare	3
ENG-2720	Survey of Biblical Literature	3
ENG-2730	Exploration of World Mythology	3
ENG-2770	Rhetorics of Gaming: Introduction to Video Game Analysis	3
<b>History</b>		
HIST-2031	Islam to the Modern Middle East	3
<b>Humanities</b>		
HUM-1010	Introduction to Humanities	3
HUM-1020	The Individual in Society	3
HUM-102H	Honors Individual in Society	3
HUM-1030	The Individual in Cosmos	3
HUM-2020	Community Engagement Through the Humanities	3
<b>Media and Journalism Studies</b>		
MJS-1310	Film Appreciation	3
<b>Music</b>		
MUS-1010	Survey of European Classical Music	3
MUS-1020	Survey of Jazz	3
MUS-1030	Survey of Rock and Roll	3
MUS-1040	Survey of African-American Music	3
MUS-1050	Survey of World Music	3
MUS-2520	Jazz History I	2
<b>Philosophy</b>		
PHIL-1000	Critical Thinking	3
PHIL-1010	Introduction to Philosophy	3

PHIL-101H	Honors Introduction to Philosophy	3
PHIL-1020	Introduction to Logic	3
PHIL-2010	Comparative World Religion	3
PHIL-2020	Ethics	3
PHIL-202H	Honors Ethics	3
PHIL-2031	Philosophy of Science	3
PHIL-2040	Philosophy of Art	3
PHIL-2050	Bioethics	3
PHIL-205H	Honors Bioethics	3
PHIL-2060	Business Ethics	3
PHIL-208H	Honors Social Justice	3
<b>Religious Studies</b>		
REL-1010	Introduction to Religious Studies	3
REL-2010	Religious Traditions of Western Christianity	3
REL-2060	African-American Religious Experience	3
<b>Theatre Arts</b>		
THEA-1010	Theatre Appreciation	3
THEA-1100	Survey and Appreciation of American Musical Theatre	3
THEA-2210	History of Theatre and Drama I	3
THEA-2220	History of Theatre & Drama II	3

### Elective Graduation Requirements (21 credits)

The remaining semester credits needed to complete the required minimum total of 60 semester credits may be chosen from 1000-level courses and above, exclusive of developmental coursework. Courses taken for general education requirements cannot count toward fulfilling elective graduation requirements. Students wishing to maximize the use of credits toward a bachelor's degree should select electives according to the requirements of their intended transfer destination school or major. The state-approved Transfer Module provides a general guide for transferability.

### Cross-listed Courses

Cross-listed courses are identical courses offered in two or more subject areas. They differ only in subject area code and course number. Credit may be earned once for cross-listed courses.