

ASSOCIATE OF TECHNICAL STUDIES

The Associate of Technical Study (ATS) degree allows students to combine courses from two or more different technical programs to create a degree that focuses on a special career interest. Students who have successfully completed a course of technical studies at a non-credit-bearing postsecondary institution that has an articulation agreement with the College may be able to receive up to 30 transfer credits toward an Associate of Technical Study degree in the specific program identified in the agreements.

Associate of Technical Study Degree

Cuyahoga Community College will grant an Associate of Technical Study degree to students in good standing upon completion of the following requirements.

Comprehensive Graduation Requirements

The Associate of Technical Study degree prepares students with the skills necessary to enter and compete effectively in today's workforce. It is awarded for the successful completion of an individually planned technical education program that contains an area of concentration formed either by an intra-institutional combination of courses from two or more different technical programs or by credit (maximum of 30 semester credit hours) awarded by the College for courses completed or training received at other institutions with which the College has entered into an articulation agreement.

1. Students must complete an ATS contract, which includes an outline of specific coursework to be taken to earn the ATS degree. Students must work with an academic counselor to develop the ATS contract.
2. Students must satisfactorily complete at least 60 semester credits at the 1000-level or higher. No more than 3 of the 60 credits can be completed in physical education.
3. Students must achieve 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).
4. Students must complete a minimum of 20 of the 60 semester credits at Cuyahoga Community College after the ATS application has been approved.
5. Special Topics, Independent Study/Research and Cooperative Education courses may be applied toward the general education and program requirements unless otherwise noted.

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 and elective 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 I¹
- Three (3) semester credits selected from the following courses:

Code	Title	Credit Hours
Communication Studies		
COMM-1010	Fundamentals of Speech Communication	3
COMM-101H	Honors Speech Communication	3
English		
ENG-1020	College Composition II	3
ENG-102H	Honors College Composition II	3
ENG-2151	Technical Writing	3

- ¹ Students who transfer in credits for ENG-1020 College Composition II without having credit for ENG-1010 will have ENG-1010 waived, but the required 6 hours in Communication must be earned.

Mathematics and Data Analysis (3 semester credits)

The ability to integrate numerical methods for use in today's workforce is essential. Students must complete the following to complete this requirement:

- Three (3) semester credits of Mathematics at the 1000-level or higher, selected from the following courses:

Code	Title	Credit Hours
MATH-1100	Mathematical Explorations	3
MATH-1190	Algebraic and Quantitative Reasoning	3
MATH-1240	Contemporary Mathematics	3
MATH-1380	Mathematics for Elementary and Middle School Teachers II	4
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

Arts and Humanities/Social and Behavioral Sciences/ Natural and Physical Sciences (6 semester credits)

The appreciation of the achievements of the Arts and Humanities, Social and Behavioral Sciences, Natural and Physical Sciences provides the ability to integrate learning within a complex global perspective; to gain an awareness of and respect for different cultures; to integrate ethical decision making in dealing responsibly with personal, family, and community issues; and to understand, analyze, and describe aspects of human behavior from diverse political, social, historical, and cultural perspectives. To meet this requirement, students must complete the following:

- Select six (6) semester credits from at least 2 of the following areas, with a minimum of 3 credits in each area:
- Courses that have been used to complete the Communication requirement cannot count toward fulfilling Arts and Humanities requirement.

Arts and Humanities

Code	Title	Credit Hours
Art		
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
Dance		
DANC-1100	Dance Appreciation	3
English 2000-level Literature courses		
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
History		
HIST-2031	Islam to the Modern Middle East	3
Humanities		
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

Media and Journalism Studies

MJS-1310	Film Appreciation	3
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Music

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

Philosophy

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

Religious Studies

REL-1010	Introduction to Religious Studies	3
REL-2010	Religious Traditions of Western Christianity	3
REL-2060	African-American Religious Experience	3

Theatre

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

Social and Behavioral Sciences

Code	Title	Credit Hours
Anthropology		
ANTH-1010	Cultural Anthropology	3
ANTH-2010	Peoples and Cultures of the World	3
ANTH-2110	Archaeology	3
Economics		
ECON-1210	Survey of Economics	3
ECON-2000	Principles of Microeconomics	3
ECON-2010	Principles of Macroeconomics	3
Geography		
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
History		
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-2160	African American History 1877-present	3
HIST-2520	Hitler and the Holocaust	3
HIST-2660	Women in American History	3
Political Science		
POL-1010	American National Government	3
POL-101H	Honors American National Government	3
POL-1020	State & Local Government	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
Psychology		
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
Sociology		
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
SOC-2550	Race and Ethnic Relations	3

Urban Studies

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

Women's Studies

WST-1510	Introduction to Women's Studies	3
WST-2010	Women in the World	3
WST-2120	Women and Politics	3

Natural and Physical Sciences

Code	Title	Credit Hours
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Natural and Physical Sciences

ANTH-1210	Human Evolution	4
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Biology

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-1221	Anatomy and Physiology for Diagnostic Medical Imaging	4
BIO-1230	Anatomy and Physiology of the Eye	4
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-151H	Honors Principles of Biology II	4
BIO-2020	Tropical Biology	4
BIO-2060	Principles of Genetics	3
BIO-2070		3
BIO-2100	Biology of Aging	3
BIO-2150	Environmental Science	3
BIO-2200	Radiobiology	2
BIO-2331	Anatomy and Physiology I	4
BIO-2341	Anatomy and Physiology II	4
BIO-2500	Microbiology	4
BIO-2600	Pathophysiology	3
Chemistry		
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-1081	Medicinal Plants Chemistry	3
CHEM-130H	Honors General Chemistry I	5
CHEM-130L	General Chemistry Laboratory I	1
CHEM-1310	General Chemistry II	4
CHEM-131H	Honors General Chemistry II	5
CHEM-131L	General Chemistry Laboratory II	1
CHEM-2000	Analytical Chemistry	5
CHEM-2300	Organic Chemistry I	5
CHEM-2310	Organic Chemistry II	5
Earth Science		
ESCI-1030	Earth	3
ESCI-103L	Earth Laboratory	1
ESCI-1040	Weather Studies	3
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
Physics		
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-1300	Physics of Optical Materials	4
PHYS-2250	Radiographic Physics and Quality Control	4
PHYS-2310	General Physics I	5
PHYS-2320	General Physics II	5
The following courses from non-science subject areas can be counted toward this requirement for the Associate of Applied Business degree:		
DIET-1200	Basic Nutrition	3
EMT-1401	Anatomy & Physiology for Paramedics	4
MT-1242	Somatic Studies I	3
MT-1272	Somatic Studies II	3
MT-1280	Somatic Studies III	2

and above, exclusive of developmental coursework and physical education. Courses taken to meet general education requirements in Communication, Mathematics and Data Analysis, Arts and Humanities, Social and Behavioral Sciences, or Natural and Physical Sciences cannot count towards fulfilling elective graduation requirements. Selection of elective semester credit hours of coursework shall be related to the occupational objective of the student of the basic components to further develop technical competencies.

Program Requirements

The program leading to an Associate of Technical Study degree must have an area of concentration that is equivalent to 30 semester credits in technical studies and clearly identifiable with a career objective. Approximately one half of each Associate of Technical Study program is devoted to non-technical studies.

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.

Elective Graduation Requirements (15 semester credits)

The remaining 15 semester credits to complete the required minimum total of 60 semester credits may be chosen from 1000-level courses