

ASSOCIATE IN SCIENCE DEGREE

Degree Requirements

(Total Minimum Credits Required: 64)

(A complete list of General Education Core Curriculum transfer courses is available at the Illinois Articulation Initiative website: <http://www.itransfer.org>).

Each candidate for an Associate in Science (A.S.) degree shall:

1. Select courses to complete the required credits from:
 - a. general education core requirement courses,
 - b. coursework in the Human Relations and Global/Multicultural Studies or Contemporary Life Skills categories,
 - c. additional mathematics and science requirements, and
 - d. additional coursework
(see *Notes* at end of A.S. degree) to a minimum of 64 credits.
2. Satisfactorily complete a minimum of 31 credits in General Education (<https://catalog.cod.edu/educational-opportunities/#generaleducation>) Core Curriculum (Illinois Articulation Initiative course codes are listed in parentheses after each course or sequence) in the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories as specified below.

a. **Communication** - 9 credits

Code	Title	Credits
Writing		
ENGLI 1101	English Composition I (C1 900) ¹	3
ENGLI 1102	English Composition II (C1 901R) ¹	3
Oral		
SPEEC 1100	Fundamentals of Speech Communication (C2 900) ¹	3

¹ Grade of "C" or higher required.

b. **Physical and Life Sciences** - 7 to 10 credits

Select one course from Life Sciences and one course from Physical Sciences. At least one course must have a laboratory component.

Code	Title	Credits
Life Sciences		
<i>Biology</i>		
BIOLO 1100	Survey of Biology (L1 900L)	4
BIOLO 1110	Environmental Biology (L1 905L)	4
BIOLO 1120	Introduction to Genetics (No Lab) (L1 906)	3
BIOLO 1130	Fundamentals of Biotechnology (L1 906L)	4
BIOLO 1151	Principles of Biological Science (L1 910L)	5

Physical Sciences

Chemistry

CHEMI 1105	Contemporary Chemistry (P1 903L)	4
CHEMI 1137	(P1903L)	
CHEMI 1205	Intro to Forensic Science & Chemistry (P1 903L)	4
CHEMI 1211	Survey of General Chemistry (P1 902L)	5
CHEMI 1551	Principles of Chemistry I (P1 902L)	5

Earth Science

EARTH 1101	Physical Geology of Earth's Interior (P1 907L)	4
EARTH 1102	Physical Geology of Earth's Surface (P1 907L)	4
EARTH 1105	Environmental Geology (P1 908L)	4
EARTH 1110	Introduction to Meteorology (P1 905L)	4
EARTH 1111	Climate and Global Change (No Lab) (P1 905)	3
EARTH 1115	Severe and Unusual Weather (P1 905L)	4
EARTH 1119	Weather Impacts and Preparedness (No Lab) (P1 905)	3
EARTH 1120	Introduction to Astronomy (No Lab) (P1 906)	3
EARTH 1122	Astronomy: The Solar System (P1 906L)	4
EARTH 1124	Astronomy: Stars and Galaxies (P1 906L)	4
EARTH 1126	Observational Astronomy (P1 906L)	3
EARTH 1130	Introduction to Oceanography (P1 905L)	4

or EARTH 1131 Fundamentals of Oceanography

EARTH 1135	Water Science-Fundamentals of Hydrology (P1 905L)	4
EARTH 1140	Fundamentals of Earth Science (P1 905L)	4

or EARTH 1141 Introduction to Earth Science

Physics

PHYSI 1100	Physics (P1 900L)	4
PHYSI 1150	Energy and Society (P1 901)	3
PHYSI 1180	Physics in the Modern Era: Quarks to Cosmos	3
PHYSI 1201	General Physics I (P1 900L)	5
PHYSI 2111	Physics for Science and Engineering I (P2 900L)	5

c. **Mathematics** - 3 to 5 credits

Code	Title	Credits
Mathematics		
MATH 1218	General Education Mathematics (M1 904)	3
MATH 1220	Quantitative Literacy (M1 901)	3
MATH 1322	Mathematics for Elementary School Teachers II (M1 903)	3
MATH 1533	Finite Mathematics (M1 906)	4
MATH 1635	Statistics (M1 902) ¹	4
MATH 2000	Survey of Calculus (M1 900-O)	3
MATH 2115	Discrete Mathematics (M1 905)	3

MATH 2134	Calculus for Business and Social Science (M1 900-B)	4
MATH 2231	Calculus and Analytic Geometry I (M1 900-1)	5
MATH 2232	Calculus and Analytic Geometry II (M1 900-2)	5
MATH 2233	Calculus and Analytic Geometry III (M1 900-3)	4
Psychology		
PSYCH 2280	Statistics/Social & Behavioral Sciences (M1 902) ¹	3
Sociology		
SOCIO 2205	Statistics for the Social and Behavioral Sciences (M1 902) ¹	3

¹ Only one from these three courses may count toward overall degree requirement credit.

d. **Humanities and Fine Arts** - 6 credits

Select at least one course from Humanities and at least one course from Fine Arts.

Humanities

Code	Title	Credits
<i>Chinese</i>		
CHINE 2202	Intermediate Chinese II (H1 900)	4
<i>English</i>		
ENGLI 1130	Introduction to Literature (H3 900)	3
ENGLI 1150	Short Fiction (H3 901)	3
ENGLI 1151	Novel (H3 901)	3
ENGLI 1152	Poetry (H3 903)	3
ENGLI 1153	Drama (H3 902)	3
ENGLI 1154	Film As Literature (HF 908) ¹	3
ENGLI 1157	Children's Literature (H3 918)	3
ENGLI 1158	Bible As Literature (H5 901)	3
ENGLI 1159	Greek Mythology (H9 901)	3
ENGLI 1160	Native American Literature (H3 910D)	3
ENGLI 1161	Multicultural Literatures of the U.S. (H3 910D)	3
ENGLI 1165	Literature, Gender, and Sexualities (H3 911D)	3
ENGLI 2220	British Literature to 1800 (H3 912)	3
ENGLI 2221	British Literature From 1800 Through The Present (H3 913)	3
ENGLI 2223	American Literature From the Colonial Period to the Civil War (H3 914)	3
ENGLI 2224	American Literature From the Civil War to the Present (H3 915)	3
ENGLI 2226	World Literature (H3 907)	3
ENGLI 2227	Modern European Literature (H3 907)	3
ENGLI 2228	Shakespeare (H3 905)	3
ENGLI 2262	Non-Western Literature (H3 908N)	3
<i>French</i>		
FRENC 2202	Intermediate French II (H1 900)	4
FRENC 2251	Conversation and Composition I (H1 900)	3

FRENC 2252	Conversation and Composition II (H1 900)	3
<i>German</i>		
GERMA 2202	Intermediate German II (H1 900)	4
GERMA 2251	Conversation and Composition I (H1 900)	3
GERMA 2252	Conversation and Composition II (H1 900)	3
<i>History</i>		
HISTO 1110	Foundations of the European World (H2 901)	3
HISTO 1120	Europe in the Modern World (H2 902)	3
HISTO 1160	World Civilization Since 1300 (H2 907)	3
HISTO 2205	History of Asia (H2 903N)	3
HISTO 2220	History and Culture of China (H2 903N)	3
HISTO 2225	History and Culture of Russia (H2 908)	3
HISTO 2230	History and Culture of Japan (H2 908)	3
HISTO 2235	20th Century World History (H2 903N)	3
HISTO 2245	History and Culture of England (H2 908)	3
<i>Humanities</i>		
HUMNT 1102	Introduction to Humanities: Ideas and Values (H9 900)	3
HUMNT 1103	Introduction to World Mythology (H9 901)	3
HUMNT 1104	Women in Arts: Cultural and Artistic Expressions of Gender (HF 907D)	3
HUMNT 1105	Humanities Beyond the U.S. & Europe (HF 904N)	3
HUMNT 1110	The Arts and Cultural Diversity (HF 906D) ¹	3
HUMNT 1120	Introduction to Medical Humanities (H9 900)	3
HUMNT 1150	Intersections of Humanities, Math, And Science (H9 900)	3
<i>Italian</i>		
ITALI 2202	Intermediate Italian II (H1 900)	4
<i>Japanese</i>		
JAPAN 2202	Intermediate Japanese II (H1 900)	4
<i>Korean</i>		
KOREA 2202	Intermediate Korean II (H1 900)	4
<i>Motion Picture/Television</i>		
MPTV 1154	Film As Literature (HF 908)	3
<i>Philosophy</i>		
PHILO 1100	Introduction to Philosophy (H4 900)	3
PHILO 1110	Ethics (H4 904)	3
PHILO 1116	Environmental Ethics (H4 904)	3
PHILO 1120	Logic (H4 906)	3
PHILO 1125	Critical Thinking (H4 906)	3
PHILO 1150	World Religions (H5 904N)	3
PHILO 2010	Ancient Philosophy (H4 901)	3
PHILO 2011	Early Modern Philosophy (H4 902)	3
PHILO 2150	Philosophy of Religion (H4 905)	3
PHILO 2155	Asian Thought (H4 903N)	3

Religious Studies

RELIG 1100	Introduction to Religion (H5 900)	3
RELIG 1110	Introduction to the Bible: Old Testament (H5 901)	3
RELIG 1120	Introduction to the Bible: New Testament (H5 901)	3
RELIG 1150	World Religions (H5 904N)	3
RELIG 2155	Asian Thought (H4 903N)	3
RELIG 2160	Judaism, Christianity and Islam (H5 901)	3

Russian

RUSSI 2202	Intermediate Russian II (H1 900)	4
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Spanish

SPANI 2202	Intermediate Spanish II (H1 900)	4
SPANI 2206	Spanish for Heritage Speakers I (H1 900)	4
SPANI 2208	Spanish for Heritage Speakers II (H1 900)	4
SPANI 2251	Conversation and Composition I (H1 900)	3
SPANI 2252	Conversation and Composition II (H1 900)	3

Fine Arts

Code	Title	Credits
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Art

ART 1100	Introduction to Visual Art and Culture (F2 900)	3
ART 2211	Art Histories Before 1400 CE (F2 901)	3
ART 2212	Art Histories 1400 to 1950 (F2 902)	3
ART 2213	Art Histories Since 1950 (F2 902)	3
ART 2214	Non-Western Art (F2 903N)	3

English

ENGLI 1135	Introduction to Film Art (F2 908)	3
ENGLI 1145	Film History (F2 909)	3
ENGLI 1154	Film As Literature (HF 908) ¹	3

Humanities

HUMNT 1101	Introduction to Humanities: The Arts (F9 900)	3
HUMNT 1104	Women in Arts: Cultural and Artistic Expressions of Gender (HF 907D)	3
HUMNT 1105	Humanities Beyond the U.S. & Europe (HF 904N) ¹	3
HUMNT 1110	The Arts and Cultural Diversity (HF 906D) ¹	3

Motion Picture/Television

MPTV 1135	Introduction to Film Art (F2 908)	3
MPTV 1145	Film History (F2 909)	3
MPTV 1154	Film As Literature (HF 908)	3

Music

MUSIC 1100	Music Appreciation (F1 900)	3
MUSIC 1104	Introduction to American Music (F1 904)	3
MUSIC 1115	Introduction to World Music (F1 903N)	3

Theater

THEAT 1100	Theater Appreciation (F1 907)	3
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¹ Interdisciplinary credit (HF) may be earned as either Fine Arts or Humanities.

e. Social and Behavioral Sciences - 6 credits

Courses must be selected from at least two disciplines.

Code	Title	Credits
Anthropology		
ANTHR 1000	Introduction to Anthropology (S1 900N)	3
ANTHR 1100	Cultural Anthropology (S1 901N)	3
ANTHR 1105	Practical Anthropology (S1 904D)	3
ANTHR 1130	People and Cultures of the World (S1 904D)	3
ANTHR 1200	Discovering Archaeology (S1 903)	3
ANTHR 1400	Race, Sex and Human Evolution (S1 902)	3
Economics		
ECONO 2200	Principles of Economics (S3 900)	3
ECONO 2201	Macroeconomics and the Global Economy (S3 901)	3
ECONO 2202	Microeconomics and the Global Economy (S3 902)	3
Geography		
GEOGR 1100	Western World Geography (S4 901)	3
GEOGR 1105	Eastern World Geography (S4 902N)	3
GEOGR 1120	Economic Geography (S4 903N)	3
GEOGR 1130	Cultural Geography (S4 900N)	3
GEOGR 1140	Urban Geography (S4 901)	3
History		
HISTO 1130	History of the United States to 1865 (S2 900)	3
HISTO 1140	History of the United States Since 1865 (S2 901)	3
HISTO 2210	History and Culture of Africa (S2 907N)	3
HISTO 2215	History and Culture of South Asia (S2 916N)	3
HISTO 2242	African-American History (S2 923D)	3
HISTO 2260	United States History Since 1945 (S2 901)	3
Political Science		
POLS 1100	Introduction to Political Science (S5 903)	3
POLS 1101	American Politics (S5 900)	3
POLS 1105	State and Local Politics (S5 902)	3
POLS 2203	Comparative Politics (S5 905)	3
POLS 2220	World Politics (S5 904N)	3
Psychology		
PSYCH 1100	General Psychology (S6 900)	3
PSYCH 2230	Developmental Psychology: Childhood and Adolescence (S6 903)	3
PSYCH 2233	Developmental Psychology: Adolescence (S6 904)	3

PSYCH 2235	Developmental Psychology: Adulthood (S6 905)	3
PSYCH 2237	Developmental Psychology: The Life Span (S6 902)	3
PSYCH 2240	Social Psychology (S8 900)	3
Sociology		
SOCIO 1100	Introduction to Sociology (S7 900)	3
SOCIO 1120	Sociology of Sex, Gender and Power (S7 904D)	3
SOCIO 2210	Social Problems (S7 901)	3
SOCIO 2215	Race and Racism in America (S7 903D)	3
SOCIO 2220	Sexual Relationships, Marriage & Family (S7 902)	3

3. Fulfill these requirements in the categories specified
- Complete at least one course from the Human Relations (<https://catalog.cod.edu/educational-opportunities/#genedcategories>) category.
 - Complete at least one course from the Global/Multicultural Studies (<https://catalog.cod.edu/educational-opportunities/#genedcategories>) or Contemporary Life Skills (<https://catalog.cod.edu/educational-opportunities/#genedcategories>) category.

4. Additional Mathematics and Science requirements. Select at least two courses from Physical and Life Sciences and at least one course from Mathematics.

a. **Physical and Life Sciences**

Select at least two courses with a minimum total of 6 credits.

Code	Title	Credits
Anatomy and Physiology		
ANAT 1500	Survey of Human Anatomy and Physiology	4
ANAT 1551	Human Anatomy and Physiology I	4
ANAT 1552	Human Anatomy and Physiology II	4
ANAT 1571	Anatomy and Physiology With Cadaver I	4
ANAT 1572	Anatomy and Physiology With Cadaver II	4
BIOLO 1130	Fundamentals of Biotechnology ¹	4
BIOLO 1140		
BIOLO 1151	Principles of Biological Science ¹	5
BIOLO 1152	Principles of Biological Science	5
BIOLO 1200	Introduction to Animal Research in the Field	2-3
BIOLO 2150	Ecology	4
BIOLO 2151	Cell Biology	4
Botany		
BOTAN 1310	Ethnobotany	4
BOTAN 1320	Prairie Ecology	4
BOTAN 2350	Introduction to Botany	4
BOTAN 2360	Local Flora	3
Microbiology		
MICRO 1420	Microbiology ¹	4
Zoology		
ZOOLO 1220	Insects and Humans	3

ZOOLO 2250	Comparative Vertebrate Zoology	4
ZOOLO 2260	Invertebrate Zoology	4

Chemistry

CHEMI 1137	¹	
CHEMI 1212	Survey of Organic Chemistry	5
CHEMI 1237	Scientific Concepts - Sustainable Energy	4
CHEMI 1552	Principles of Chemistry II	5
CHEMI 2213	Introduction to Biochemistry With Laboratory	4
CHEMI 2551	Organic Chemistry I	5
CHEMI 2552	Organic Chemistry II	5

Earth Science

EARTH 1101	Physical Geology of Earth's Interior ¹	4
EARTH 1102	Physical Geology of Earth's Surface ¹	4
EARTH 1105	Environmental Geology ¹	4
EARTH 1110	Introduction to Meteorology ¹	4
EARTH 1111	Climate and Global Change ¹	3
EARTH 1115	Severe and Unusual Weather ¹	4
EARTH 1116	Weather Analysis and Forecasting I	1
EARTH 1117	Weather Analysis and Forecasting II	1
EARTH 1119	Weather Impacts and Preparedness ¹	3
EARTH 1120	Introduction to Astronomy ¹	3
EARTH 1122	Astronomy: The Solar System ¹	4
EARTH 1124	Astronomy: Stars and Galaxies ¹	4
EARTH 1126	Observational Astronomy ¹	3
EARTH 1130	Introduction to Oceanography ¹	4
	or EARTH 1131 Fundamentals of Oceanography	
EARTH 1135	Water Science-Fundamentals of Hydrology ¹	4
EARTH 1140	Fundamentals of Earth Science ¹	4
	or EARTH 1141 Introduction to Earth Science	
EARTH 2102	Origin and Evolution of the Earth	4
EARTH 2103	Geologic Field Investigations	3
EARTH 2110	Intermediate Meteorology	4
EARTH 2115	Mesoscale Meteorology	4
EARTH 2116	Adv Weather Analysis & Forecasting I	1
EARTH 2117	Adv Weather Analysis & Forecasting II	1
EARTH 2118	Severe Weather Lab	1

Physics

PHYSI 1150	Energy and Society ¹	3
PHYSI 1202	General Physics II	5
PHYSI 2111	Physics for Science and Engineering I ¹	5
PHYSI 2112	Physics for Science and Engineering II	5
PHYSI 2115	Physics for Science and Engineering III	4

¹ Courses also meet general education requirements. If any of these courses is chosen to fulfill requirements for the General Education Core Curriculum, choose others to meet the Additional Mathematics and Science Requirements.

b. **Mathematics**

Select at least one course with a minimum total of 3 credits.

Code	Title	Credits
MATH 1218	General Education Mathematics ¹	3
MATH 1220	Quantitative Literacy ¹	3
MATH 1321	Mathematics for Elementary School Teachers I	4
MATH 1322	Mathematics for Elementary School Teachers II ¹	3
MATH 1340	History of Mathematics	3
MATH 1428	College Algebra With Applications	3
MATH 1431	Precalculus I	5
MATH 1432	Precalculus II: Trigonometry	3
MATH 1533	Finite Mathematics ¹	4
MATH 1635	Statistics ¹	4
MATH 2115	Discrete Mathematics ¹	3
MATH 2134	Calculus for Business and Social Science ¹	4
MATH 2231	Calculus and Analytic Geometry I ¹	5
MATH 2232	Calculus and Analytic Geometry II ¹	5
MATH 2233	Calculus and Analytic Geometry III ¹	4
MATH 2245	Linear Algebra	4
MATH 2270	Differential Equations	4
MATH 2300	Mathematical Proof	3

¹ Courses also meet general education requirements. If any of these courses is chosen to fulfill requirements for the General Education Core Curriculum, choose others to meet the Additional Mathematics and Science Requirements.

Select courses to complete the required 64 credits from General Education Core Curriculum courses, elective courses (<https://catalog.cod.edu/educational-opportunities/#electives>), and up to 10 credits in Career/Technical Education courses.

- Satisfy graduation requirements (<https://catalog.cod.edu/educational-opportunities/#gradreqs>) for all associate degrees.
- Earn no more than 6 credits in History in the Humanities and Fine Arts and Social and Behavioral Sciences categories combined for general education credit. Additional credits in History from general education or other categories may be earned as elective credit, unless restricted by degree requirements.
- Earn no more than 4 credits in Physical Education activity courses.
- Only one of the following courses may count toward the degree: MATH 1428 College Algebra With Applications or MATH 1431 Precalculus I.
- Complete a minimum of two courses with a minimum of 6 credits in Physical and Life Sciences from the Additional Mathematics and Science Requirements category.
- Complete a minimum of one course with a minimum of 3 credits in Mathematics from the Additional Mathematics and Science Requirements category.
- Earn no more than 16 credits in courses numbered 1800 or 2800, 1840 or 2840, 1820 to 1829, and 2820 to 2829, or labeled as independent study, experimental/pilot, selected topics or field/experiential.
- Earn no more than 12 credits with a satisfactory/fail grade option in courses counted toward elective credit.

- Earn General Education Core Curriculum course credit with letter grades, not satisfactory/fail grades.
- Earn no more than 42 credits for the Communication, Physical and Life Sciences, Mathematics, Humanities and Fine Arts, and Social and Behavioral Sciences categories by demonstrated competence through the Advanced Placement Program (AP), designated course-specific subject examinations of the College Level Examination Program (CLEP), and the College of DuPage Proficiency Through an Instructor Program.
- Earn the remaining credits in courses that normally apply to a bachelor's degree as indicated in the transfer program guides.

Notes: For help in choosing additional coursework beyond the General Education Core to fulfill this degree, students should consult a Student Success Counselor or Program Advisor from their area of interest for suggestions regarding course selection from the range of offerings in a specific field of study.

There is no guarantee that elective or Career/Technical Education courses will transfer as specific course equivalents to a baccalaureate-granting institution or other colleges.

The transferability of these courses needs to be validated with a transfer institution.

Degree-seeking students should complete the General Education Core Curriculum and required sequence courses before transfer to another participating IAI institution to guarantee the completion of lower division general education coursework.