



**ASSOCIATE OF SCIENCE**  
**ASSOCIATE OF SCIENCE – GENERAL**

**2024-25 Catalog**

Effective Summer 2024

*The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.*

**7106**

*Arts and Sciences Division*

*Chemistry/Physics Department*

| Course Number  | Course Title   | Credits | Pre- and Co-Requisites                   | Completed Sem./Year |
|--|--|---------|--|---------------------|
| <b>FRESHMAN EXPERIENCE</b>   |  |         |  |                     |
| SSC101   | Student Success Seminar^^                              | 1       | Take first semester                      |                     |
| <b>COMPUTER APPLICATIONS</b>   |  |         |  |                     |
| ITD122   | Computer Applications for Professionals^<br>(required) | 3       | ITD100 or Proficiency                    |                     |
| <b>ENGLISH COMPOSITION AND ORAL COMMUNICATION: 6 credit hours minimum</b>            |  |         |  |                     |
| ENG124   | College Composition^ (required)                        | 3       | Co-ENG024 or Co-ENG011<br>or Proficiency |                     |
| ENG221   | Technical Report Writing                               | 3       | ENG124                                   |                     |
| ENG230   | Business Communication                                 | 3       | ENG124                                   |                     |
| ENG231   | College Composition II                                 | 3       | ENG124                                   |                     |
| COM121   | Effective Speaking                                     | 3       |  |                     |
| COM122   | Interpersonal Communication                            | 3       |  |                     |
| <b>SOCIAL AND BEHAVIORAL SCIENCES: 9 credit hours minimum across two disciplines</b> |  |         |  |                     |
| PSC121   | U.S. Government and Politics                           | 3       |  |                     |
| PSY121   | General Psychology^                                    | 3       | IDS102 or Proficiency                    |                     |
| PSY123   | Human Growth & Development                             | 3       | PSY121                                   |                     |
| PSY124   | Industrial/Organizational Psychology                   | 3       |  |                     |
| PSY220   | Social Psychology                                      | 3       | PSY121                                   |                     |
| PSY221   | Abnormal Psychology                                    | 3       | PSY121                                   |                     |
| PSY131   | Psychology of Personality                              | 3       |  |                     |
| BUS122   | Basic Economics^                                       | 3       | IDS102 or Proficiency                    |                     |
| BUS221   | Microeconomics^  | 3       | IDS102 or Proficiency                    |                     |
| BUS222   | Macroeconomics^  | 3       | IDS102 or Proficiency                    |                     |
| SOC121   | Sociology^   | 3       | IDS102 or Proficiency                    |                     |
| SOC122   | Society and Technology                                 | 3       |  |                     |
| SOC123   | Dynamics of the Family                                 | 3       |  |                     |
| SOC225   | Diversity in American Society (required)               | 3       | IDS102 or Proficiency                    |                     |

^ Based on SSC placement scores

^^ To promote student success, this course should be taken in the first semester

▲-Fall only courses. Please see your academic advisor for availability.

▲+Spring only courses. Please see your academic advisor for availability.

|  |                                       |             |
|--|---------------------------------------|-------------|
| 2024-25 Catalog<br>Effective Summer 2024 | <b>ASSOCIATE OF SCIENCE – GENERAL</b> | <b>7106</b> |
|--|---------------------------------------|-------------|

| Course Number   | Course Title  | Credits | Pre- and Co-Requisites  | Completed Sem./Year |
|---|---|---------|---|---------------------|
| <b>ARTS AND HUMANITIES: 6 credit hours minimum across two disciplines</b> |   |         |   |                     |
| ENG233  | British Literature: Med to 1785                     | 3       | ENG124  |                     |
| ENG234  | British Literature: 1785 to Present                 | 3       | ENG124  |                     |
| ENG235  | Introduction to Shakespeare ▲+                      | 3       | ENG124  |                     |
| ENG236  | American Literature: Colonial to 1865               | 3       | ENG124  |                     |
| ENG237  | American Literature: 1865 to Present                | 3       | ENG124  |                     |
| ENG239  | Film Appreciation                                   | 3       |   |                     |
| ENG240  | Women’s Literature                                  | 3       |   |                     |
| ENG241  | Major Modern Writers ▲+                             | 3       | ENG124  |                     |
| HIS121  | U.S. History I to 1877                              | 3       |   |                     |
| HIS122  | U.S. History II from 1877                           | 3       |   |                     |
| HIS221  | World Civilization to 17 <sup>th</sup> Century      | 3       |   |                     |
| HIS222  | World Civilization from 17 <sup>th</sup> Century    | 3       |   |                     |
| PHL122  | Ethics  | 3       |   |                     |
| <b>NATURAL SCIENCES: 12 credit hours minimum (1 lab course required)</b>  |   |         |   |                     |
| BIO101  | Introduction to Anatomy and Physiology <sup>^</sup> | 3       | IDS102 <b>or</b> Proficiency  |                     |
| BIO121  | Anatomy and Physiology I (lab) <sup>β</sup>         | 4       | BIO101 <b>or</b> Proficiency  |                     |
| BIO122  | Anatomy and Physiology II (lab)                     | 4       | BIO121 <b>or</b> BIO123   |                     |
| BIO126  | Science, Energy, & the Environment (lab)            | 4       |   |                     |
| BIO127  | Human Biology (lab)                                 | 4       |   |                     |
| BIO128  | Climate Studies (lab)▲+                             | 3       |   |                     |
| BIO129  | Meteorology (lab)                                   | 3       |   |                     |
| BIO130  | Ocean Studies (lab)▲-                               | 3       |   |                     |
| BIO141  | General Biology I (lab)                             | 4       |   |                     |
| BIO142  | General Biology II (lab)                            | 4       |   |                     |
| BIO200  | Ecology (lab)▲-                                     | 4       | BIO141 <b>or</b> BIO142   |                     |
| BIO241  | General Genetics (lab)                              | 4       | BIO141  |                     |
| BIO242  | Cell & Molecular Biology (lab)▲+                    | 4       | BIO141  |                     |
| BIO221  | Principles of Microbiology (lab)                    | 4       | BIO122 <b>or</b> BIO123 <b>or</b><br>BIO127 <b>or</b> BIO141                            |                     |
| CHM100  | Exploring Science and Technology (lab)              | 4       |   |                     |
| CHM101  | Introduction to Chemistry <sup>^</sup>              | 4       | (MTH022 <b>or</b> MTH023 <b>or</b><br>Proficiency) <b>or</b> MTH105 <b>or</b><br>MTH107 |                     |
| CHM105  | Introduction to Forensic Science (lab)              | 3       |   |                     |
| CHM205  | Forensic Chemistry (lab)                            | 4       | CHM123 <b>or</b> CHM141 <b>or</b><br>CHM105   |                     |

<sup>^</sup> Based on SSC placement scores

▲-Fall only courses. Please see your academic advisor for availability.

▲+Spring only courses. Please see your academic advisor for availability.

<sup>β</sup> Credit will be granted for BIO121 or BIO123 but not both.

| Course Number   | Course Title   | Credits      | Pre- and Co-Requisites  | Completed Sem./Year |
|---|--|--------------|---|---------------------|
| <b>NATURAL SCIENCES, continued: 12 credit hours minimum (1 lab course required)</b> |  |              |   |                     |
| CHM123  | General, Organic, and Biological Chemistry (lab)   | 4            | (MTH024 or MTH025 or Proficiency) or MTH105 or MTH107 or (CHM101 or Proficiency)    |                     |
| CHM141  | General Chemistry I (lab)  | 5            | CHM101 or Proficiency   |                     |
| CHM142  | General Chemistry II (lab)   | 5            | CHM141  |                     |
| CHM241  | Organic Chemistry I (lab)▲-  | 5            | CHM142  |                     |
| CHM242  | Organic Chemistry II (lab)▲+   | 5            | CHM241  |                     |
| GEO141  | Physical Geology (lab)   | 4            |   |                     |
| PHY101  | Principles of Physics <sup>^</sup> (lab)   | 4            | [(MTH024 or MTH025 or Proficiency) or MTH105 or MTH107] and (IDS102 or Proficiency) |                     |
| PHY105  | Astronomy (lab)  | 4            |   |                     |
| PHY121  | College Physics I with Algebra (lab) <sup>^</sup>  | 4            | MTH135 or (MTH125 and MTH130) or Proficiency  |                     |
| PHY122  | College Physics II with Algebra (lab)▲+  | 4            | PHY121  |                     |
| PHY221  | General Physics I with Calculus (lab)▲-  | 5            | MTH223 and Co-MTH224  |                     |
| PHY222  | General Physics II with Calculus (lab)▲+   | 5            | PHY221 and MTH224 and Co-MTH225   |                     |
| <b>MATHEMATICS, STATISTICS, AND LOGIC: 3-5 credit hours minimum</b>                 |  |              |   |                     |
| MTH118  | Quantitative Reasoning   | 3            |   |                     |
| MTH124  | Statistics <sup>^</sup>  | 3            | MTH093 or Pre-Co-MTH024 or Proficiency  |                     |
| MTH125  | College Algebra <sup>^μ</sup>  | 4            | MTH094 or Pre-Co-MTH025 or Proficiency  |                     |
| MTH130  | Trigonometry <sup>μ</sup>  | 3            | MTH125  |                     |
| MTH135  | Precalculus <sup>^μ</sup> – <i>A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.</i> | 5            | (MTH093 and MTH094) or Proficiency  |                     |
| MTH223  | Analytic Geometry and Calculus I <sup>^</sup>  | 4            | MTH135  |                     |
| MTH224  | Analytic Geometry and Calculus II  | 4            | MTH223  |                     |
| MTH225  | Analytic Geometry and Calculus III   | 3            | MTH224  |                     |
| MTH226  | Linear Algebra▲-   | 3            | MTH224  |                     |
| MTH227  | Ordinary Differential Equations▲+  | 3            | MTH224  |                     |
| <b>ADDITIONAL ELECTIVES TO COMPLETE DEGREE*</b>                                     |  | <b>15-25</b> |   |                     |
| <b>TOTAL CREDIT HOURS</b><br><i>(60 credit minimum)</i>                             |  | <b>60-65</b> |   |                     |

<sup>^</sup> Based on SSC placement scores

\*Additional Electives: Choose from previous pages or the additional electives list shown on the next page.

▲-Fall only courses. Please see your academic advisor for availability.

▲+Spring only courses. Please see your academic advisor for availability.

<sup>μ</sup> Credit will be granted for MTH135 or (MTH125 and/or MTH130) but not both.

**ASSOCIATE OF SCIENCE ELECTIVES**

The Associate of Science Degree requires a **minimum of 60 credit hours**. Students should select a minimum of 40 credit hours from the previous pages. They must further choose 20-25 elective credit hours from the previous pages or the list below to reach a minimum of 60 credit hours. Please note, courses on the previous pages are OT36 and/or TAG with the exception of SSC101 and IDS122; the listing on this page may contain OT36 or TAG courses. Please see your academic advisor for assistance with course selection.

| <b>TRANSFERRED ASSURANCE GUARANTEED (TAG) COURSES</b> |  |                |                               |                            |
|---|--|----------------|-------------------------------|----------------------------|
| <b>Course Number</b>                                  | <b>Course Title</b>                                  | <b>Credits</b> | <b>Pre- and Co-Requisites</b> | <b>Completed Sem./Year</b> |
| ASL122  | American Sign Language I                             | 4              |                               |                            |
| ASL124  | American Sign Language II                            | 4              | ASL122 <b>or</b> Proficiency  |                            |
| ASL221  | American Sign Language III                           | 4              | ASL124                        |                            |
| BIO124  | Human Diseases                                       | 3              | BIO122 <b>or</b> BIO123       |                            |
| BIO125  | Medical Terminology                                  | 3              |                               |                            |
| CJS121  | Introduction to Criminal Justice                     | 3              |                               |                            |
| CJS129  | Corrections  | 3              |                               |                            |
| CJS221  | Criminology  | 3              | CJS121                        |                            |
| COM123  | Small Group Communication                            | 3              | IDS102 <b>or</b> Proficiency  |                            |
| COM125  | Introduction to Communication Theory <sup>^</sup> ▲- | 3              | IDS102 <b>or</b> Proficiency  |                            |
| COM126  | Introduction to Mass Communication ▲+                | 3              |                               |                            |
| SOC221  | Social Problems                                      | 3              | SOC121                        |                            |
| PSC221  | State and Local Government                           | 3              | IDS102 <b>or</b> Proficiency  |                            |
| PSY131  | Psychology of Personality                            | 3              |                               |                            |
| FIN110  | Personal Finance                                     | 2              |                               |                            |

| <b>ADDITIONAL ARTS &amp; SCIENCES COURSES</b>                          |   |
|--|---|
| <b>Biology</b>   | <b>Social and Behavioral Sciences</b>               |
| BIO123 Principles of Human Structure & Function (lab)(5)# <sup>β</sup> | GER121 Introduction to Gerontology (3)              |
| BIO222 Pharmacology (3)  | GER122 Psychosocial Aspects of Aging (3)            |
|  | PSC122 Introduction to Law and the Legal System (3) |
| <b>Chemistry</b>   | PSC222 Public Policy (3)                            |
| CHM243 Biochemistry I (3)  | PSY222 Psychological Aspects of Therapy (3)         |
|  | SOC222 Juvenile Delinquency (3)                     |
| <b>English and Modern Languages</b>                                    |   |
| ENG125 Technical Editing & Layout (3)▲+                                | <b>Sciences</b>                                     |
| ENG126 Technical Grammar and Style (3)                                 | SCI271 Special Topics in Science I (1)              |
| ENG227 Writing for Media (3)   | SCI272 Special Topics in Science II (2)             |
| ENG228 Writing for the Web (3)▲-                                       | SCI273 Special Topics in Science III (3)            |
| ENG229 Grant Writing (3)   |   |
| SPN100 Elementary Spanish I (4)  |   |
| SPN200 Elementary Spanish II (4)▲+                                     |   |
|  |   |
| <b>General</b>   | <b>English Composition and Oral Communication</b>   |
| SSC201 Study Away (1)  | COM223 Interviewing (3)▲-                           |
| STN100 State Tested Nurse Aide (3)                                     |   |
| NTR121 Nutrition for Health (3)  |   |
| ASL121 Introduction to Deaf Culture Community (3)                      |   |

#BIO121 and BIO122 may be substituted for BIO123.

▲-Fall only courses. Please see your academic advisor for availability.

▲+Spring only courses. Please see your academic advisor for availability.

<sup>β</sup> Credit will be granted for BIO121 or BIO123 but not both.

## FULL-TIME STUDENT ADVISING NOTES

### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester to discuss their academic progress and plans as well as career plans.

### Elective Additional Credit

Self-selection of courses and not following the approved degree program could adversely affect graduation, transfer to a 4-year institution, and financial aid. Visit the website of the university and program to which you are transferring for their course requirements and <https://www.transferology.com/> to assist in developing a plan for transferring to another college or university. Students should select Ohio Transfer 36 approved and/or TAG approved courses.

### Bachelor's Degree

Bachelor's degree requirements and course transferability are controlled by the institution to which the student plans to transfer.

### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

| <u>First Semester</u>   |  | <u>Credit Hours</u> | <u>Pre- and Co-requisites</u>                       |
|---|--|---------------------|---|
| SSC101  | Student Success Seminar <sup>^^</sup>                | 1                   | <i>Take first semester</i>                          |
| ITD122  | Computer Applications for Professionals <sup>^</sup> | 3                   | ITD100 <b>or</b> Proficiency                        |
| ENG124  | College Composition <sup>^</sup> <b>(Required)</b>   | 3                   | Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency |
| <i>Mathematics, Statistics, and Logic Elective</i> <sup>2^</sup>                                  |  | 3-5                 | <i>Check for prerequisites</i>                      |
| <i>Natural Science Elective</i> <sup>▲3^</sup>  |  | 3-5                 | <i>Check for prerequisites</i>                      |
|   |  | <b>13-17</b>        |   |
| <u>Second Semester</u>  |  |                     |   |
| <i>Elective</i> <sup>6</sup>  |  | 3-5                 | <i>Check for prerequisites</i>                      |
| <i>Natural Science Elective</i> <sup>▲3^</sup>  |  | 3-5                 | <i>Check for prerequisites</i>                      |
| <i>Social and Behavioral Science Elective</i> <sup>5^</sup>                                       |  | 3                   | <i>Check for prerequisites</i>                      |
| <i>English Composition and Oral Communication Elective</i> <sup>4</sup>                           |  | 3                   | <i>Check for prerequisites</i>                      |
|   |  | <b>12-16</b>        |   |
| <u>Third Semester</u>   |  |                     |   |
| SOC225  | Diversity in American Society <b>(Required)</b>      | 3                   | IDS102 <b>or</b> Proficiency                        |
| <i>Arts and Humanities Elective</i> <sup>1</sup>  |  | 3                   | <i>Check for prerequisites</i>                      |
| <i>Elective</i> <sup>6</sup>  |  | 3-5                 | <i>Check for prerequisites</i>                      |
| <i>Natural Science Elective</i> <sup>▲3^</sup>  |  | 3-5                 | <i>Check for prerequisites</i>                      |
|   |  | <b>12-16</b>        |   |
| <u>Fourth Semester</u>  |  |                     |   |
| <i>Arts and Humanities Elective</i> <sup>1</sup>  |  | 3                   | <i>Check for prerequisites</i>                      |
| <i>Natural Science Elective</i> <sup>▲3^</sup>  |  | 3-5                 | <i>Check for prerequisites</i>                      |
| <i>Social and Behavioral Science Elective</i> <sup>5^</sup>                                       |  | 3                   | <i>Check for prerequisites</i>                      |
| <i>Elective</i> <sup>6</sup> (Take an additional 0 – 14 credit hours to reach 60-65 credit hours) |  | 0-14                | <i>Check for prerequisites</i>                      |
|   |  | <b>9-25</b>         |   |
| <b>TOTAL CREDITS</b>  |  | <b>60-65</b>        |   |

<sup>^</sup>Based on SSC placement scores.

<sup>^^</sup>To promote student success, this course should be taken in the first semester.

<sup>▲</sup> Because of the strong emphasis on science in this major, applicants must have successfully completed chemistry and biology in high school. Students who did not complete the courses in high school, and those who prefer to refresh their knowledge of the material, should complete the listed pre-requisites.

<sup>1</sup> **Arts and Humanities Electives:** ENG233, ENG234, ENG236, ENG235, ENG236, ENG237, ENG239, ENG240, ENG241, HIS121, HIS122, HIS221, HIS222, PHL122

<sup>2</sup> **Mathematics, Statistics and Logic Electives:** MTH118, MTH124, MTH125, MTH130, MTH135, MTH223, MTH224, MTH225, MTH226, MTH227

<sup>3</sup> **Natural Sciences Electives:** BIO101, BIO121, BIO122, BIO126, BIO127, BIO128, BIO129, BIO130, BIO141, BIO142, BIO200, BIO241, BIO242, BIO221, CHM100, CHM101, CHM105, CHM205, CHM123, CHM141, CHM142, CHM241, CHM242, GEO141, PHY101, PHY105, PHY121, PHY122, PHY221, PHY222

<sup>4</sup> **English Composition and Oral Communication Electives:** ENG221, ENG230, ENG231, COM121, COM122

<sup>5</sup> **Social and Behavioral Science Electives:** BUS122, BUS221, BUS222, PSC121, PSY121, PSY123, PSY124, PSY220, PSY221, PSY131, SOC121, SOC122, SOC123, SOC225

<sup>6</sup> **Electives:** BIO123, BIO124, BIO125, BIO222, CHM243, CHM244, ENG125, ENG227, ENG228, ENG229, ENG239, ENG240, SPN100, SPN200, COM223, GER121, GER122, PSC122, PSC221, PSC222, PSY222, SOC222, CST121, SCI271, SCI272, SCI273, SSC201, STN100 or any additional English Composition and Oral Communication, Social and Behavioral Science, Arts and Humanities, Mathematics, or Natural Science electives.