

About the Program

The Associate in Science (A.S.) Degree in Data Science Technology program prepares students to enter or advance in the field of data science. From retail to manufacturing and healthcare to transportation, almost every industry relies on data science for all aspects of their operations.

Program Requirements

This program requires a **minimum of 60 credit hours**. Total program hours may vary based on the student's individual academic degree plan. This program is **eligible** for financial aid.

This program includes a **Statistical Reasoning math pathway**. This pathway is intended for students whose academic program requires a foundation in descriptive statistics, probability, and inferential statistics to facilitate the use and interpretation of data.

Placement Testing

College placement testing assesses incoming students' skill levels in English, mathematics, and reading. Students are exempt from placement testing if they meet any of the following conditions:

- Entered the ninth grade in a Florida public school in 2003 or after and graduated from a Florida Public High school with a standard high school diploma
- Are currently serving as an active-duty member of any branch of the U.S. Armed Services
- Have received an A.A., A.S., A.A.S. or higher from an accredited institution
- Have completed college-level courses in English and mathematics
- Have completed upper-level developmental courses in English/Reading and Mathematics
- Are a Transient student (Florida Shines or transient letter from home institution is required)

All other students in this program must take a placement test. Students who place into **developmental education courses** are required to complete designated developmental education courses with a grade of C or higher regardless of program of study and are also required to take one of two student success strategies courses. For additional information, visit catalog.fscj.edu/academics/developmental-education-programs or speak with an advisor.

Educational Pathways

Technical certificates are available within this degree program. You may pursue the A.S. degree and earn technical certificates while completing the requirements for the degree or pursue one or more certificates to develop or upgrade your skills in a particular field. **Contact an advisor** to determine the career education path that is best for you.

- ⇒ The **Data Science Technician** Technical Certificate includes 42 credit hours from the Computer Information Technology A.S. degree and is **eligible** for financial aid. To learn more about this technical certificate, visit fscj.edu/academics/programs/certs/6287.
- ⇒ The **FinTech Technician** Technical Certificate includes 33 credit hours from the Computer Information Technology A.S. degree and is **eligible** for financial aid. To learn more about this technical certificate, visit fscj.edu/academics/programs/certs/6289.

Associate in Science Degree Graduation Requirements

- ☐ Fulfill all academic requirements for the chosen program of study as outlined in the Florida State College at Jacksonville catalog and curriculum.
- ☐ Earn a cumulative grade point average of 2.0 (C) at Florida State College at Jacksonville in courses eligible toward the Associate in Science degree programs, excluding developmental education courses (A.S. Florida State College at Jacksonville GPA).
- ☐ Earn an all-college cumulative grade point average of 2.0 (C) on a 4.0 scale on all courses attempted. This requirement includes Florida State College at Jacksonville college-credit semester hours and transferred credits (excluding developmental education) in lower division courses.
- ☐ Complete a minimum of 25 percent of the total hours required for the program in residence at Florida State College at Jacksonville. Credit by examination and credit for prior learning do not count toward this residency requirement.
- ☐ Complete the required semester hours, as specified by the degree, of which a minimum of 15 semester hours must be General Education requirements.
- ☐ Demonstrate competency in civic literacy. Competency is demonstrated by:
 - ☐ Completing of one of three civic literacy courses (AMH 2010, AMH 2020 or POS 2041) with a grade of C or higher, and
 - ☐ Achieving of the standard score on a state-approved assessment.
- ☐ Earn a grade of a C or higher in each course used to satisfy the general education requirements and any other area designated with a C or higher requirement.
- ☐ Fulfill all obligations, financial or otherwise, to the College before graduating.

Catalog Year

This document is prepared for students with a **2025-26 College Catalog year** who have not tested into developmental education courses. **Students who enter under the 2025-26 catalog** will be assigned to the degree or certificate requirements in effect during the 2025-26 academic year. The student's assigned catalog year will remain in effect as long as the student maintains continuous enrollment. Changes to requirements as mandated by law or by rule of the District Board of Trustees may supersede this provision.

To maintain continuous enrollment, a student must have registration for, and successful completion of, at least one course within a three-term period. After three consecutive terms of no enrollment, the student will be discontinued from the current program of study and will need to apply to FSCJ to reenter under the same program of study. Upon readmission, the student will be assigned to the current catalog of record in the chosen program.

Curriculum

Sample Roadmap

Terms Offered are subject to change. Please verify course availability at fscj.edu/schedules. Prior to enrolling in classes, please meet with an advisor for specific guidance about your individual academic degree plan.

All courses in this program must be completed with a grade of C or higher.

Term 1

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|--|---------------------|
| <input type="checkbox"/> General Education Communication State Core course, Credit Hours: 3-4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> General Education Mathematics State Core course, Credit Hours: 3-5. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> CGS 1060C - Introduction to Information Technology, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> CNT 1015C - Operating Systems Foundations, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |

Term 2

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|---|---------------------|
| <input type="checkbox"/> General Education Humanities State Core course, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> General Education Natural Sciences State Core course, Credit Hours: 3-4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> CNT 2001C - Computer Networks and Telecommunications, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> COP 1000C - Introduction to Computer Programming, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |

Term 3

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|---|---------------------|
| <input type="checkbox"/> CGS 2512C - Spreadsheet Concepts and Practices, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> COP 2800C - Java 1, Credit Hours: 3. Terms Offered: Fall, Spring. | Grade Earned: _____ |
| <input type="checkbox"/> CTS 1120C - Fundamentals of Information Security, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> CTS 2437C - SQL Server I - Fundamentals, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |

Term 4

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| <input type="checkbox"/> General Education Social and Behavioral Sciences: Civic Literacy course, Credit Hours: 3. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> CAP 2787C - Data Warehousing, Credit Hours: 3. Terms Offered: Fall 2025, Spring 2026. | Grade Earned: _____ |
| <input type="checkbox"/> COP 2034C - Programming in Python, Credit Hours: 3. Terms Offered: Fall, Spring. | Grade Earned: _____ |
| <input type="checkbox"/> COP 2822C - Web Technologies, Credit Hours: 4. Terms Offered: Fall, Spring, Summer. | Grade Earned: _____ |

Term 5

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|---|---------------------|
| <input type="checkbox"/> CAP 2741C - Data Visualization, Credit Hours: 2. Terms Offered: Fall 2025, Summer 2026, Spring 2027, Summer 2027. | Grade Earned: _____ |
| <input type="checkbox"/> CIS 2349C - Introduction to Big Data Applications, Credit Hours: 3. Terms Offered: Spring, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> COP 2073C - Introduction to Statistical Programming with R, Credit Hours: 3. Terms Offered: Fall, Summer. | Grade Earned: _____ |
| <input type="checkbox"/> CTS 2456C - Introduction to SAS Programming, Credit Hours: 3. Terms Offered: Spring, Summer. | Grade Earned: _____ |

Course Requirements

Prerequisites, corequisites, and conditions for any course are subject to change. Students must meet the prerequisite and corequisite requirements of any course at the time the student attempts to register for that course. If you have questions about the prerequisites, corequisites, or conditions for a course, please contact any academic advisor.

General Education Communication Courses

Complete one of the following courses.

ENC 1101 - English Composition I, Credit Hours: 3. *State Core course.*

Prerequisite(s): Satisfactory score on the placement test for non-exempt students only. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule writing requirement and must be completed with a grade of C or higher pursuant to State Board of Education Rule 6A-10.030. Effective Spring 2014, students who entered the ninth grade in a Florida public high school in the 2003-2004 school year, or any year thereafter, and earned a standard Florida high school diploma, or students who are serving as active duty members in any branch of the United States Armed Services, will not be required to take the common placement test (P.E.R.T.) or to enroll in developmental education at any Florida College System institution, including Florida State College at Jacksonville (per Senate Bill 1720, State Board Rule 6A-10.0315). These students shall be considered exempt from common placement testing and developmental education instruction, and may accordingly enroll directly in ENC 1101 or ENC 1101C. For placement in any communications course beyond ENC 1101 or ENC 1101C, exempt students will be required to take the common placement test. Effective Fall 2022, students who earn a grade of C or higher will be automatically awarded the digital badge in Fundamentals of Written Communication. **Terms Offered:** Fall, Spring, Summer.

ENC 1101C - English Composition I Enhanced, Credit Hours: 4. *State Core course.* **Prerequisite(s):** Satisfactory score on the placement test for non-exempt students only. **Corequisite(s):** None. **Conditions:** This course fulfills category A of students' General Education requirements in Communications. The additional one-credit hour of supplemental instruction and practice will appear as an Associate in Arts elective on students' college transcripts. This course fulfills the Gordon Rule writing requirement and must be completed with a grade of C or higher pursuant to State Board of Education Rule 6A-10.030. Effective Spring 2014, students who entered the ninth grade in a Florida public high school in the 2003-2004 school year, or any year thereafter, and earned a standard Florida high school diploma, or students who are serving as active duty members in any branch of the United States Armed Services, will not be required to take the common placement test (P.E.R.T.) or to enroll in developmental education at any Florida College System institution, including Florida State College at Jacksonville (per Senate Bill 1720, State Board Rule 6A-10.0315). These students shall be considered exempt from common placement testing and developmental education instruction and may accordingly enroll directly in ENC 1101 or ENC 1101C. For enrollment in any communications course beyond ENC 1101/ENC 1101C, exempt students will be required to take the common placement test. This course is recommended for Associate in Arts degree seeking students. Associate in Science degree seeking students are advised to take ENC 1101 to avoid concerns regarding financial aid and excess hour surcharges. Effective Fall 2022, students who earn a grade of C or higher will be automatically awarded the digital badge in Fundamentals of Written Communication. **Terms Offered:** Fall, Spring, Summer.

General Education Humanities Courses

Complete one of the following courses.

ARH 2000 - Art in the Humanities, Credit Hours: 3. *State Core course.*

Prerequisite(s): Qualify for enrollment in ENC 1101. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule writing requirement and must be completed with a grade of C or higher pursuant to State Board of Education Rule 6A-10.030. **Terms Offered:** Fall, Spring, Summer.

HUM 2020 - Topics in the Humanities, Credit Hours: 3. *State Core course.*

Prerequisite(s): Qualify for enrollment in ENC 1101. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule writing requirement and must be completed with a grade of C or higher pursuant to State Board of Education Rule 6A-10.030. This course cannot be repeated for General Education or Elective Credit, regardless of the course topic, except for grade forgiveness purposes. **Terms Offered:** Fall, Spring, Summer.

LIT 2000 - Literature in the Humanities, Credit Hours: 3. *State Core course.*

Prerequisite(s): ENC 1101 or ENC 1101C each with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule writing requirement and must be completed with a grade of C or higher pursuant to State Board of Education Rule 6A-10.030. **Terms Offered:** Fall, Spring, Summer.

MUL 2010 - Music in the Humanities, Credit Hours: 3. *State Core course.*

Prerequisite(s): Qualify for enrollment in ENC 1101. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule writing requirement and must be completed with a grade of C or higher pursuant to State Board of Education Rule 6A-10.030. **Terms Offered:** Fall, Spring, Summer.

PHI 2010 - Philosophy in the Humanities, Credit Hours: 3. *State Core course.*

Prerequisite(s): Qualify for enrollment in ENC 1101. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule writing requirement and must be completed with a grade of C or higher pursuant to State Board of Education Rule 6A-10.030. **Terms Offered:** Fall, Spring, Summer.

THE 2000 - Theatre in the Humanities, Credit Hours: 3. *State Core course.*

Prerequisite(s): Qualify for enrollment in ENC 1101. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule writing requirement and must be completed with a grade of C or higher pursuant to State Board of Education Rule 6A-10.030. **Terms Offered:** Fall, Spring, Summer.

General Education Mathematics Courses

Complete one of the following courses.

MAC 1105 - College Algebra, Credit Hours: 3. *State Core course.*

Prerequisite(s): MAT 1033 with a grade of C or higher or a satisfactory score on the placement test. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). Effective Spring 2014, students who entered the ninth grade in a Florida public high school in the 2003-2004 school year, or any year thereafter, and earned a standard Florida high school diploma, or students who are serving as active duty members in any branch of the United States Armed Services, will not be required to take the common placement test (P.E.R.T.) or to enroll in developmental education at any Florida College System institution, including Florida State College at Jacksonville (per Senate Bill 1720, State Board Rule 6A-10.0315). These students shall be considered exempt from common placement testing and developmental education instruction, and may accordingly enroll directly in MAT 1033 or MGF 1130 or MGF1131. For placement in any college-credit math course beyond MAT 1033 or MGF 1130 or MGF1131, exempt students will be required to take the common placement test. This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

MAC 1105C - College Algebra Enhanced, Credit Hours: 5. *State Core course.*

Prerequisite(s): MAT 1033 with a grade of D or higher or MAC 1105 with a grade of D or lower or a satisfactory score on the placement test. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). Effective Spring 2014, students who entered the ninth grade in a Florida public high school in the 2003-2004 school year, or any year thereafter, and earned a standard Florida high school diploma, or students who are serving as active duty members in any branch of the United States Armed Services, will not be required to take the common placement test (P.E.R.T.) or to enroll in developmental education at any Florida College System institution, including Florida State College at Jacksonville (per Senate Bill 1720, State Board Rule 6A-10.0315). These students shall be considered exempt from common placement testing and developmental education instruction, and may accordingly enroll directly in MAT 1033 or MGF 1130 or MGF 1131. For placement in any college-credit math course beyond MAT 1033 or MGF 1130 or MGF 1131, exempt students will be required to take the common placement test. This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

MAC 1114 - College Trigonometry, Credit Hours: 3. **Prerequisite(s):** MAC 1105 or MAC 1105C each with a grade of C or higher. **Corequisite(s):** None. **Conditions:** A strong high-school Algebra background is recommended. This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 1140 - Precalculus Algebra, Credit Hours: 4. **Prerequisite(s):** MAC 1105 or MAC 1105C each with a grade of C or higher or a satisfactory score on the placement test. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 1147 - Precalculus Algebra and Trigonometry, Credit Hours: 5. **Prerequisite(s):** MAC 1105 or MAC 1105C each with a grade of B or higher or satisfactory score on the placement test. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 2233 - Calculus for Business and Social Sciences, Credit Hours: 3. **Prerequisite(s):** MAC 1105 or MAC 1105C or MAC 1140 each with a grade of C or higher or a satisfactory score on the placement test. **Corequisite(s):** None. **Conditions:** Appropriate technology is required. This course does not satisfy degree requirements for students majoring in mathematics or engineering. This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 2311 - Calculus With Analytic Geometry I, Credit Hours: 4. *State Core course.* **Prerequisite(s):** MAC 1140 and MAC 1114 each with a grade of C or higher or MAC 1147 with a grade of a C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 2312 - Calculus With Analytic Geometry II, Credit Hours: 4. **Prerequisite(s):** MAC 2311 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAC 2313 - Calculus With Analytic Geometry III, Credit Hours: 4. **Prerequisite(s):** MAC 2312 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MAP 2302 - Differential Equations, Credit Hours: 3. **Prerequisite(s):** MAC 2312 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

MGF 1130 - Mathematical Thinking, Credit Hours: 3. *State Core course.* **Prerequisite(s):** Satisfactory score on the placement test for non-exempt students. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule of Computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). Effective Spring 2014, students who entered the ninth grade in a Florida public high school in the 2003-2004 school year, or any year thereafter, and earned a standard Florida high school diploma, or students who are serving as active duty members in any branch of the United States Armed Services, will not be required to take the common placement test or to enroll in developmental education at any Florida College System institution, including Florida State College at Jacksonville (per State Board Rule 6A-10.0315). These students shall be considered exempt from common placement testing and developmental education instruction, and may accordingly enroll directly in MAT 1033 or MGF 1130 or MGF 1131, depending on their program of study requirement. For placement in any math course beyond MAT 1033 or MGF 1130 or MGF 1131, exempt students will be required to take the common placement test. **Terms Offered:** Fall, Spring, Summer.

STA 2023 - Elementary Statistics, Credit Hours: 3. *State Core course.* **Prerequisite(s):** Satisfactory score on placement test or successful completion of MAT 1033 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course fulfills the Gordon Rule computation requirement and must be completed with a grade of C or higher (pursuant to State Board of Education Rule 6A-10.030). **Terms Offered:** Fall, Spring, Summer.

General Education Natural Sciences Courses

Complete one of the following courses.

AST 1002 - Introduction to Astronomy, Credit Hours: 3. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** Suggested course: AST 1002L (course may be taken following or concurrent with AST 1002L). This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

BSC 1005 - Life in Its Biological Environment, Credit Hours: 3. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

BSC 2010C - Principles of Biology I, Credit Hours: 4. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** This course fulfills the General Education Requirements and the laboratory requirement needed by many students who plan to transfer to a four-year institution. **Terms Offered:** Fall, Spring, Summer.

BSC 2085C - Human Anatomy and Physiology I, Credit Hours: 4. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** High School Chemistry taken within the past five years. High School Biology taken within the past five years. This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

CHM 1020 - Chemistry for Liberal Arts, Credit Hours: 3. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

CHM 2045C - General Chemistry and Qualitative Analysis I, Credit Hours: 4. *State Core course.* **Prerequisite(s):** MAC 1105 or MAC 1105C or higher-level MAC prefix course or MAP 2302, and CHM 1025C with a grade of C or higher. **Corequisite(s):** None. **Conditions:** Passing score on the Toledo Chemistry test may substitute for CHM 1025C prerequisite requirement. **Terms Offered:** Fall, Spring, Summer.

ESC 1000 - Earth and Space Science, Credit Hours: 3. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

EVR 1001 - Introduction to Environmental Science, Credit Hours: 3. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** This course fulfills the General Education Physical Science requirement. **Terms Offered:** Fall, Spring, Summer.

OCE 2001 - Survey of Oceanography, Credit Hours: 3. *State Core course.* **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** TBA.

PHY 1020C - Physics for Liberal Arts with Laboratory, Credit Hours: 3. *State Core course.* **Prerequisite(s):** MAT 1033 or higher. **Corequisite(s):** MAT 1033 or higher. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

PHY 2048C - Physics I with Calculus, Credit Hours: 4. **Prerequisite(s):** MAC 2311. **Corequisite(s):** MAC 2312. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

PHY 2053C - General Physics I, Credit Hours: 4. *State Core course.* **Prerequisite(s):** (1) MAC 1140 and MAC 1114; or (2) MAC 2311; or (3) MAC 1147 with a grade of C or higher. **Corequisite(s):** None. **Conditions:** This course may require proctored testing at an approved location. Students may be charged testing fees at off-campus and virtual testing locations. For additional information and resources, please see the College's Online Learning website. **Terms Offered:** Fall, Spring, Summer.

General Education Social and Behavioral Sciences Courses

Complete one of the following courses.

AMH 2010 - United States History to 1877, Credit Hours: 3. *State Core course.* **Prerequisite(s):** Qualify for enrollment in ENC 1101. **Corequisite(s):** None. **Conditions:** Successful completion of this course satisfies the following Civic Literacy Competency Requirement: Prior to the award of an associate in arts or baccalaureate degree, first-time-in-college students entering a Florida College System institution in the 2018-2019 school year, and thereafter, must demonstrate competency in civic literacy (Florida Statute 1007.25, Section 4; State Board of Education Rule 6A-10.02413). **Terms Offered:** Fall, Spring, Summer.

AMH 2020 - United States History from 1877 to the Present, Credit Hours: 3. *State Core course.* **Prerequisite(s):** Qualify for enrollment in ENC 1101. **Corequisite(s):** None. **Conditions:** Successful completion of this course satisfies the following Civic Literacy Competency Requirement: Prior to the award of an associate in arts or baccalaureate degree, first-time-in-college students entering a Florida College System institution in the 2018-2019 school year, and thereafter, must demonstrate competency in civic literacy (Florida Statute 1007.25, Section 4; State Board of Education Rule 6A-10.02413). **Terms Offered:** Fall, Spring, Summer.

POS 2041 - American Federal Government, Credit Hours: 3. *State Core course.* **Prerequisite(s):** Qualify for enrollment in ENC 1101. **Corequisite(s):** None. **Conditions:** Successful completion of this course satisfies the following Civic Literacy Competency Requirement: Prior to the award of an associate in arts or baccalaureate degree, first-time-in-college students entering a Florida College System institution in the 2018-2019 school year, and thereafter, must demonstrate competency in civic literacy (Florida Statute 1007.25, Section 4; State Board of Education Rule 6A-10.02413). **Terms Offered:** Fall, Spring, Summer.

Professional Courses

Complete all of the following courses.

CAP 2741C - Data Visualization, Credit Hours: 2. **Prerequisite(s):** COP 2822C and COP 2034C and CGS 2512C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** **Fall 2025, Summer 2026, Spring 2027, Summer 2027.

CAP 2787C - Data Warehousing, Credit Hours: 3. **Prerequisite(s):** CTS 2437C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** **Fall 2025, Spring 2026.

CGS 1060C - Introduction to Information Technology, Credit Hours: 3. **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

CGS 2512C - Spreadsheet Concepts and Practices, Credit Hours: 3. **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

CIS 2349C - Introduction to Big Data Applications, Credit Hours: 3. **Prerequisite(s):** COP 2034C, COP 2800C, CTS 2437C and CNT 1015C with a grade of C or higher. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Spring, Summer.

CNT 1015C - Operating Systems Foundations, Credit Hours: 3. **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

CNT 2001C - Computer Networks and Telecommunications, Credit Hours: 3. **Prerequisite(s):** CGS 1060C or CGS 1100C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

COP 1000C - Introduction to Computer Programming, Credit Hours: 3. **Prerequisite(s):** None. **Corequisite(s):** None. **Conditions:** Suggested Course: MAT 1033 with a grade of C or higher or satisfactory score on mathematics placement test. **Terms Offered:** Fall, Spring, Summer.

COP 2034C - Programming in Python, Credit Hours: 3. **Prerequisite(s):** COP 1000C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring.

COP 2073C - Introduction to Statistical Programming with R, Credit Hours: 3. **Prerequisite(s):** COP 1000C. **Corequisite(s):** None. **Conditions:** Students are strongly recommended to take STA 2023 prior to enrollment in this course. **Terms Offered:** Fall, Summer.

COP 2800C - Java 1, Credit Hours: 3. **Prerequisite(s):** COP 1000C with a grade of C or higher. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring.

COP 2822C - Web Technologies, Credit Hours: 4. **Prerequisite(s):** COP 1000C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

CTS 1120C - Fundamentals of Information Security, Credit Hours: 3. **Prerequisite(s):** Prerequisite courses must be completed with a grade of C or higher. Option 1: CTS 1131C and CTS 1133C. Option 2: CGS 1060C and CNT 1015C and CNT 2001C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

CTS 2437C - SQL Server I - Fundamentals, Credit Hours: 3. **Prerequisite(s):** COP 1000C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Fall, Spring, Summer.

CTS 2456C - Introduction to SAS Programming, Credit Hours: 3. **Prerequisite(s):** COP 1000C. **Corequisite(s):** None. **Conditions:** None. **Terms Offered:** Spring, Summer.