COMPUTER SCIENCE, BACHELOR OF SCIENCE

A successful major program of study leads to the Bachelor of Science in computer science (B.S.). This program requires specific courses and/or credits in several key areas: computer science, math, and basic science, as well as meeting school-wide requirements in foundational abilities. There is significant flexibility in how these requirements are fulfilled. Undergraduate majors may choose to pursue a broad selection of computer science courses, or to pursue a focus area within the field. Current foci primarily reflect departmental and school research strengths: big data, computational biology, fundamentals of computing, information security, natural language processing, robotics, systems and networking; as well as career interests in software engineering and entrepreneurship. Regardless of whether students pursue a particular focus or not, our bachelor program provides excellent preparation for research within the department, summer internships, and post-graduation industry employment or graduate work.

See also General Requirements for Departmental Majors (https://ecatalogue.jhu.edu/ksas-wse/undergraduate-policies/academic-policies/ requirements-bachelors-degree/). Additional details regarding the undergraduate major can be found in the department's undergraduate advising manual (https://www.cs.jhu.edu/academic-programs/ undergraduate-studies/undergraduate-academics/undergraduateacademic-advising-manual-2021/) or on the website (https:// www.cs.jhu.edu/).

Double Majors

It is possible for students to pursue a double major program in which one of the majors is computer science. The computer science requirements are flexible enough to allow for combination with most majors in the Whiting School of Engineering and the Krieger School of Arts and Sciences. In order to declare a first or additional major in computer science, students should first discuss this intent with their academic advisor. If completion is feasible, they may initiate an on-line request through SIS, and then will need to develop a 4-year plan and review it with an Academic Program Coordinator or the Director of Undergraduate Studies in CS for approval.

The information below describes the academic requirements for students entering JHU as degree-seeking students in Fall 2025. Students who entered JHU as degree-seeking students prior to Fall 2025 should view the appropriate archived catalogue (https://e-catalogue.jhu.edu/archive/).

Students must meet the University requirements and the Whiting School of Engineering requirements (see Requirements for a Bachelor's Degree (https://e-catalogue.jhu.edu/ksas-wse/undergraduate-policies/academic-policies/requirements-bachelors-degree/)in this catalogue), as well as the departmental major requirements, to complete a bachelor's degree.

- The Bachelor of Science degree in computer science requires 120 credits.
- The CS department recognizes students with exemplary academic records by awarding Departmental Honors to students with a Grade Point Average of 3.50 or higher in courses used to satisfy the 40 CS credit requirement. Students with a primary major or an additional major in computer science are evaluated for departmental honors.

UNIVERSITY REQUIREMENTS

These requirements are described in this section of the catalogue (https://e-catalogue.jhu.edu/ksas-wse/undergraduate-policies/academicpolicies/requirements-bachelors-degree/).

WSE SCHOOL REQUIREMENTS FIRST-YEAR SEMINAR OR DESIGN CORNERSTONE REQUIREMENT

All WSE primary majors are required to complete a First-Year Seminar (FYS) or a Design Cornerstone class with a grade of Satisfactory (S).

The first-year seminar requirement is waived for students who transfer into the university after the first year. These students must still complete the minimum number of required credits to graduate.

Code	Title	Credits
One FYS or [Design Cornerstone course	2-3
Total Credits		2-3

FOUNDATIONAL ABILITIES REQUIREMENTS

All students with a primary major within the Whiting School of Engineering must complete the Foundational Abilities (https://ecatalogue.jhu.edu/ksas-wse/undergraduate-policies/academicpolicies/requirements-bachelors-degree/#writingtext) (FA) in six designated areas. Grades of C- or higher are required. No Satisfactory/ Unsatisfactory (S/U) grades will be accepted, except in cases where a course is offered on an S/U basis only, such as the Bootcamp Computing courses. For Foundational Abilities that require the submission of ePortfolio assignments in an engineering discipline, students must achieve a minimum assessment of "Proficient".

FA1 WRITING AND COMMUNICATION

This Foundational Abilities requirement has four parts:

1. Foundational Course in Writing: All WSE students are required to successfully complete one foundational course in writing. Courses that will satisfy the writing course requirement are listed below:

Code	Title	Credits
Choose one from	the following:	
AS.004.101	Reintroduction to Writing	3
EN.661.110	Professional Writing and Ethics	3

2. Writing ePortfolio Assignment: All WSE students must be assessed as at least proficient in one or more writing ePortfolio assignments. Courses that include at least one assignment eligible for the writing ePortfolio assignment requirement can be identified in SIS (https://sis.jhu.edu/sswf/)by searching for the specific tag listed below:

Code	Title	Credits
EN Foundational	Ability tag FA1.1eP	

3. Foundational Course in Oral Communication: All WSE students are required to successfully complete one foundational course in oral communication. The course that will satisfy the oral communication course requirement is listed below:

Code	Title	Credits
EN.661.250	Oral Presentations	3

4. Oral Communication ePortfolio Assignment: All WSE students must be assessed as at least proficient in one or more oral communication ePortfolio assignments. Courses that include at least one assignment applicable to the oral communication ePorfolio assignment requirement can be identified in SIS (https://sis.jhu.edu/sswf/)by searching for the specific tag listed below:

Code Title Credits

EN Foundational Ability tag FA1.2eP

FA2 SCIENTIFIC AND QUANTITATIVE REASONING

This Foundational Abilities requirement has five parts. The CS department has specified the courses below that will satisfy the requirements for primary computer science majors.

1. Calculus I: Calculus I applies to both the FA2 requirement and the CS Mathematics requirement.

Code	Title	Credits
AS.110.108	Calculus I (Physical Sciences & Engineering)	4
or AS.110.106	Calculus I (Biology and Social Sciences)	

2. Calculus II: Calculus II applies to both the FA2 requirement and the CS Mathematics requirement.

Code	Title	Credits
AS.110.109	Calculus II (For Physical Sciences and	4
	Engineering)	
or AS.110.107	Calculus II (For Biological and Social Science)	

3. Probability and Statistics: Students may choose either one combined course or two separate courses to satisfy this requirement. The Probability and Statistics course(s) apply to both the FA2 requirement and the CS Mathematics requirement, with the exception of EN.553.111 Statistical Analysis I. Additional mathematics may be required for the major; see the Major Requirements section for details.

Code	Title	Credits
One Combined Cou	ırse Option	
Choose one from	the following:	
EN.553.211	Probability and Statistics for the Life Sciences	4
EN.553.311	Intermediate Probability and Statistics	4
Two Separate Cou	rses Option	
Choose one proba	ability course from the following:	
EN.553.420	Probability ¹	4
or EN.553.421	Honors Probability	
Choose one statis	stics course from the following:	
EN.553.111	Statistical Analysis I	4
EN.553.413	Applied Statistics & Data Analysis I	4
EN.553.430	Mathematical Statistics ¹	4
or EN.553.431	Honors Mathematical Statistics	

Strongly recommended for students who will take machine learning courses.

4. Computing and Data Science: Intermediate Programming applies to both the FA2 requirement and the CS Core Course requirement.

Code	Title	Credits
EN.601.220	Intermediate Programming	4

5. Natural Science and Laboratory: One natural science lecture and its associated laboratory will apply to both the FA2 requirement and the CS Basic Sciences requirement. Additional natural science lectures and labs are required for the major; see the Major Requirements section for details.

Code	Title	Credits
Choose one from	the following:	
AS.020.151	General Biology I	4
& AS.020.153	and General Biology Laboratory I	
AS.020.152	General Biology II	4
& AS.020.154	and General Biology Lab II	
AS.030.101	Introductory Chemistry I	4
& AS.030.105	and Introductory Chemistry Laboratory I	
AS.030.102	Introductory Chemistry II	4
& AS.030.106	and Introductory Chemistry Laboratory II	
AS.171.101	General Physics: Physical Science Major I	5
& AS.173.111	and General Physics Laboratory I	
AS.171.102	General Physics: Physical Science Major II	5
& AS.173.112	and General Physics Laboratory II	
AS.171.107	General Physics for Physical Sciences Majors (AL) 5
& AS.173.111	and General Physics Laboratory I	
AS.171.108	General Physics for Physical Science Majors (A	L) 5
& AS.173.112	and General Physics Laboratory II	

FA3 CREATIVE EXPRESSION

A minimum of 12 credits of coursework in creative expression (FA3) and engagement with society (FA4) is required. At least three of these credits must be earned through a course tagged FA3. Courses with the FA3 tag can be identified in SIS (https://sis.jhu.edu/sswf/)by searching for the specific tag listed below:

Code	Title	Credits
EN Foundati	ional Ability tag FA3	3

In addition to the required FA3 and FA4 courses, students must complete six additional credits from any combination of FA3 or FA4 courses, for a total of 12 credits in FA3 and FA4.

FA4 ENGAGEMENT WITH SOCIETY

A minimum of 12 credits of coursework in creative expression (FA3) and engagement with society (FA4) is required. At least three of these credits must be earned through a course tagged FA4. Courses with the FA4 tag can be identified in SIS (https://sis.jhu.edu/sswf/)by searching for the specific tag listed below:

Code	Title	Credits
EN Foundational	Ability tag FA4	3

In addition to the required FA3 and FA4 courses, students must complete six additional credits from any combination of FA3 or FA4 courses, for a total of 12 credits in FA3 and FA4.

FA5 ETHICAL REFLECTION

This Foundational Abilities requirement has two parts:

1. Foundational Course in Ethical Reflection: All WSE students are required to successfully complete one foundational course in ethical reflection. The CS department has specified the courses below that will

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satisfy the FA5 Foundational Course in Ethical Reflection requirement and the CS Core Course requirement.

Code	Title	Credits
Choose one from	the following:	
EN.601.104	Computer Ethics	1
EN.601.124	The Ethics of Artificial Intelligence and Automat	tion 3
EN.601.164	Human and Machine Intelligence Alignment	3

2. Ethical Reflection ePortfolio Assignment: All WSE students must be assessed as at least proficient in one or more ethical reflection ePortfolio assignments. Courses that include at least one assignment eligible for the ethical reflection ePortfolio assignment requirement can be identified in SIS (https://sis.jhu.edu/sswf/)by searching for the specific tag listed below:

Code	Title	Credits
Code	Title	Cred

EN Foundational Ability tag FA5eP

FA6 CONCEIVING OF AND REALIZING PROJECTS

All WSE students must be assessed as at least proficient in two or more conceiving of and realizing projects ePortfolio assignments. Courses that include at least one assignment eligible for the conceiving of and realizing projects ePortfolio assignment requirement can be identified in SIS (https://sis.jhu.edu/sswf/)by searching for the specific tag listed below:

EN Foundational Ability tag FA6eP

MAJOR REQUIREMENTS

The requirements above and below apply to students whose primary major is Computer Science. Students pursuing Computer Science as an additional major must fulfill only the requirements listed below. The primary major determines the school-wide requirements, including how the Foundational Abilities are satisfied.

MATHEMATICS

A total of 16 credits of mathematics is required. If students take one of the following course combinations to satisfy the probability and statistics requirement, no additional math credits are needed: EN.553.420/ EN.553.421 and one of these: EN.553.413, EN.553.430, or EN.553.431.

If a student receives a waiver for Calculus I and/or II or transfers in courses with fewer credits than the corresponding JHU course credits, they must make up the difference by completing additional mathematics coursework.

Grades of C- or higher are required for courses fulfilling FA2 requirements; otherwise, grades of D or higher are required. No Satisfactory/ Unsatisfactory (S/U) grades will be accepted.

Code	Title 0	Credits
AS.110.108	Calculus I (Physical Sciences & Engineering) (FA requirement)	2 4
or AS.110.106	Calculus I (Biology and Social Sciences)	
AS.110.109	Calculus II (For Physical Sciences and Engineering) (FA2 requirement)	4
or AS.110.107	Calculus II (For Biological and Social Science)	
Probability & Stati requirement)	istics Course(s), see table below for options (FA2	4-8

Additional course(s) to reach 16 credits; courses must be at 0-4 least 200 level or above (AS.110.2xx-4xx or EN.553.2xx-4xx). Recommended courses that are prerequisites for many upper-level CS courses: AS.110.201 Linear Algebra or AS.110.21Plonors Linear Algebra

AS.110.212 Calculus III or AS.110.21Honors Multivariable Calculus

Total Credits

Credits

Probability and Statistics Course(s) Options

Students may choose one combined course or two separate courses to satisfy this requirement. The Probability and Statistics course(s) apply to both the FA2 requirement and the CS Mathematics requirement, with the exception of EN.553.111 Statistical Analysis I. This course does not count toward the CS math requirement and may only be used as a free elective toward the total credits required for the degree.

Code	Title	Credits
One Combined Cou	ırse Option	
Choose one from	the following:	
EN.553.211	Probability and Statistics for the Life Sciences	4
EN.553.311	Intermediate Probability and Statistics	4
Two Separate Cou	rses Option	
Choose one proba	ability course from the following:	
EN.553.420	Probability ¹	4
or EN.553.421	Honors Probability	
Choose one statistics course from the following:		
EN.553.111	Statistical Analysis I	
EN.553.413	Applied Statistics & Data Analysis I	4
EN.553.430	Mathematical Statistics ¹	4
or EN.553.431	Honors Mathematical Statistics	

¹ EN.553.420/EN.553.421 and EN.553.430/EN.553.431 are preferred for CS upper-level Reasoning courses.

BASIC SCIENCES

A total of 8 credits in basic sciences is required. One natural science lecture and its associated laboratory will apply to both the FA2 requirement and the CS Basic Sciences requirement.

Exam credit may be used to satisfy both the science course and the associated lab requirements. Students who receive exam credit for Biology will be waived from the corresponding lab course(s) but will not earn credit for the lab(s). As a result, the total number of basic science credits awarded may differ by 1 or 2 credits. To meet the 8-credit requirement, students must make up the missing credit(s) by taking an additional course with a Natural Science (N) area designation. AS.250.205 Introduction to Computing may not be used to satisfy this requirement.

Grades of C- or higher are required for courses fulfilling FA2 requirements; otherwise, grades of D or higher are required. No Satisfactory/ Unsatisfactory (S/U) grades will be accepted.

Code	Title	Credits
Biology, Chemistr	y, or Physics course with the associated lab (FA2	3-5
requirement)		

Biology, Chemistry, or Physics course with the associated lab	3-5
Additional science with area N designation to meet credit	
requirement	
Total Credits	8

CS COURSE REQUIREMENTS

A total of 40 CS credits are required. These include CS Core Courses, Ethics, Foundations, Team, Upper-Level, and CS Electives.

A grade of C+ or higher is required for Gateway Computing; all other CS courses must receive grades of C- or higher. At most 4 credits with Satisfactory (S) grades will be accepted, and only for courses that are not offered for a letter grade (i.e., S/U only course for all, not a student-selected option).

CS CORE COURSES

Code	Title	Credits
EN.500.112	Gateway Computing: JAVA ¹	3
or EN.500.113	Gateway Computing: Python	
EN.601.220	Intermediate Programming (FA2 requirement)	4
EN.601.226	Data Structures	4
EN.601.229	Computer System Fundamentals	3
EN.601.433	Intro Algorithms	3
Total Credits		17

¹ Students must earn a C+ or higher grade. EN.500.112 Gateway Computing: JAVA is preferred as this is needed for EN.601.226 Data Structures.

ETHICS

Ethics courses have the POS tag CSCI-ETHS. These courses may overlap with other requirements, including the FA5 Foundational Course in Ethical Reflection requirement, if also tagged as such.

Code	Title	Credits
Complete one cou	Irse with POS Tag CSCI-ETHS	1-3

FOUNDATIONS

Students may fulfill this requirement with either one course or two separate courses. If option 1 is chosen, the course will count toward the CS Elective credits. If option 2 is chosen, only EN.601.431 Theory of Computation will count toward Upper-Level or CS Elective credits; Discrete Mathematics will count as a Free Elective only.

Code	Title	Credits
Complete one of	the options:	
Option 1		
EN.601.230	Mathematical Foundations for Computer Scien	ce ¹ 4
Option 2		
EN.553.171	Discrete Mathematics ¹	
or EN.553.1	7Donors Discrete Mathematics	
EN.601.431	Theory of Computation	3

For AMS double majors: Since Discrete Mathematics is required for the AMS major, students should take EN.553.171 Discrete Mathematics/EN.553.172 Honors Discrete Mathematics before taking EN.601.230 Mathematical Foundations for Computer Science. If EN.601.230 Mathematical Foundations

for Computer Science is taken before declaring the AMS double major, then students must take an upper-level AMS course to satisfy the discrete math requirement for the AMS major.

TEAM

Team courses have the POS tag CSCI-TEAM. These courses may overlap with other requirements.

Code	Title	Credits
Complete	one course with POS Tag CSCI-TEAM	3-4

UPPER-LEVEL COURSES

At least 12 Upper-Level CS credits must be taken, not including the required core course, EN.601.433 Intro Algorithms. Some upper-level courses may have Calculus III, Probability/Statistics, or Linear Algebra as prerequisites, so students should plan accordingly.

- Classification Areas requirement: Of the 12 upper-level credits, at least 6 credits must be earned from courses in two of the four Classification Areas: Applications, Reasoning, Software, and Systems. Theory courses do not count toward this portion of the requirement.
- Additional CS Upper-Level Credit requirement: The remaining 6 credits may be satisfied by courses carrying any of the five CS Classification Areas (the four above plus Theory). A maximum of 3 credits of Customized Academic Learning (CAL) can be applied towards the upper-level requirement.

Со	le Title Cro	edits
Clá	ssification Areas	
At are	east one course from two of these four different classification as:	6
	Applications: POS Tag CSCI-APPL	
	Reasoning: POS Tag CSCI-RSNG	
	Software: POS Tag CSCI-SOFT	
	Systems: POS Tag CSCI-SYST	
Ad	litional CS Upper-Level Credits	
At or	east 6 credits of CS courses numbered EN.601.3xx - EN.601.7xx ourses with one of five area classifications:	6
	Applications: POS Tag CSCI-APPL	
	Reasoning: POS Tag CSCI-RSNG	
	Software: POS Tag CSCI-SOFT	
	Systems: POS Tag CSCI-SYST	
	Theory: POS Tag CSCI-THRY ¹	
	Dut of 6, a maximum of 3 credits of CAL (EN.601.5xx) can be applied towards the upper-level credits ²	
То	al Credits	12

¹ EN.601.433 Intro Algorithms cannot be counted towards the 12 credits, even though it is in the Theory classification area.

² Students who are doing the Senior Honors Thesis option (EN.601.519 Senior Honors Thesis and EN.601.520 Senior Honors Thesis) may use an additional 3 credits of CAL towards this requirement, for a total of six.

CS ELECTIVES

Students must complete additional CS courses as needed to reach a total of 40 CS credits.

- A maximum of six total credits from non-departmental courses with the POS Tag CSCI-OTHER may be applied towards the 40 CS credits total. These courses may be counted only towards the CS Electives requirement, regardless of the course number. For the most updated information on approved and denied courses, visit the CS website (https://www.cs.jhu.edu/computer-science-other-courses-for-bsdegree/).
- No more than 6 credits of EN.601.5xx coursework can be applied towards the CS total credits. Students who are doing the Senior Honors Thesis option (EN.601.519 Senior Honors Thesis and EN.601.520 Senior Honors Thesis) may use an additional 3 credits of customized academic learning towards the 40-CS credit requirement, for a total of 9 credits.
- At most 4 credits with Satisfactory (S) grades will be accepted, and only for courses that are not offered for a letter grade (i.e., S/U only course for all, not a student-selected option).
- No more than 3 credits of 1-credit special topics courses can be applied towards the CS total credits.

Credits

Additional CS courses to reach 40 credits chosen from:

Courses numbered EN.601.xxx	
Courses numbered TR.601.xxx	
Courses with POS tag: CSCI-APPL, CSCI-RSNG, CSCI-SOFT, CSCI- SYST, CSCI-THRY	
At most 6 credits from courses with POS tag CSCI-OTHER	

FREE ELECTIVES

Grades of D or higher are required. Satisfactory (S) grades will be accepted.

Code	Title	Credits
Elective courses to	o reach 120 credits	

Sample Program

This sample program does not explicitly include courses that students must take to fulfill certain program requirements, such as ePortfolio requirements for Foundational Abilities and a CS TEAM course. These requirements are typically met through courses that overlap with other degree requirements and are integrated into the courses outlined below. It is each student's responsibility to ensure they are meeting all program requirements as outlined on the Requirements tab.

First Year

First Semester	Credits Second Semester	Credits
AS.110.108 (FA2 Calculus I Requirement)	4 AS.110.109 (FA2 Calculus II Requirement)	4
EN.500.112	3 EN.601.104, 124, or 164 (FA5 Foundational Course in Ethical Reflection)	1-3
EN.661.110 or AS.004 101 (FA1 Foundational Course in Writing)	3 EN.601.220 (FA2 Computing and Data Science Requirement)	4
First-Year Seminar	3 EN.661.250 (FA1 Foundational Course in Oral Communication)	3

Free Elective	3 Course with EN	3
	Foundational Ability tag FA3	
	(Creative Expression)	
	16	15-17
Second Year		
First Semester	Credits Second Semester	Credits
EN.601.226	4 EN.601.229	3
EN.601.230	4 Computer Science Elective	3
Basic Science Course ¹	3-4 Basic Science Course ¹	3-4
Basic Science Lab ²	1 Basic Science Lab ²	1
Course with EN	3 Course with EN	3
Foundational Ability tag FA4	Foundational Ability tag FA3	
(Engagement with Society)	or FA4	
	15-16	13-14
Third Year		
First Semester	Credits Second Semester	Credits
EN.601.433	3 Computer Science Upper Level	3
Computer Science Elective	3 Computer Science Upper Level	3
Math Elective	4 Course in Probability and Statistics (FA2 Requirement)	4
Course with EN Foundational Ability tag FA3 or FA4	3 Elective	3
Elective	3 Elective	3
	16	16
Fourth Year		
First Semester	Credits Second Semester	Credits
Computer Science Upper	3 Computer Science Upper	3
Level	Level	
Elective	3 Elective	3
	15	15

Total Credits 121-125

Students must take two semesters of core science courses in any combination of Physics, Chemistry, or Biology with their associated labs. One of the natural science courses with its associated laboratory will satisfy the FA2 requirement. The other natural science courses with their associated laboratories will satisfy the Basic Sciences requirement for the major.

² Students who receive exam credit for Biology and Physics will be waived from the corresponding lab course(s) but will not earn credit for the lab(s).

Sample Program with Hopkins Semester

This is one example of how a student could structure their degree program to include a Hopkins Semester. Students may explore additional options with their professional academic advisor if their desired Hopkins Semester experience varies from what is presented here.

In addition, this sample program does not explicitly include courses that students must take to fulfill certain program requirements, such as ePortfolio requirements for Foundational Abilities and a CS TEAM course. These requirements are typically met through courses that overlap with other degree requirements and are integrated into the courses outlined below. It is each student's responsibility to ensure they are meeting all program requirements as outlined on the Requirements tab.

First Year

First Semester	Credits Second Semester	Credits
AS.110.108 (FA2 Calculus I Requirement)	4 AS.110.109 (FA2 Calculus II requirement)	4
EN.500.112	3 EN.601.104, 124, or 164 (FA5 Foundational Course in Ethical Reflection)	1-3
EN.661.110 or AS.004 101 (FA1 Foundational Course in Writing)	3 EN.601.220 (FA2 Computing and Data Science Requirement)	4
FYS Course	3 EN.661.250 (FA1 Foundational Course in Oral Communication)	3
Free Elective	3 Course with EN Foundational Ability tag FA3 (Creative Expression)	3
	16	15-17
Second Year		
First Semester	Credits Second Semester	Credits
EN.601.226	4 EN.601.229	3
EN.601.230	4 Computer Science Elective	3
Basic Science Course	3-4 Basic Science Course	3-4
Basic Science Lab ²	1 Basic Science Lab ²	1
Course with EN Foundational Ability tag FA4 (Engagement with Society)	3 Course in Probability & Statistics (FA2 requirement)	4
	15-16	14-15
Third Year		
First Semester	Credits Second Semester	Credits
EN.601.433	3 Hopkins Semester	
Computer Science Elective	3 Elective	3
Math Elective	4 Elective	3
Course with EN Foundational Ability tag FA3 or FA4	3 Elective	3
Elective	3 Elective	3
	Elective	3
	16	15
Fourth Year		
First Semester	Credits Second Semester	Credits
Computer Science Upper Level	3 Computer Science Upper Level	3
Computer Science Upper Level	3 Computer Science Upper Level	3
Course with EN		
Foundational Ability tag FA3 or FA4	3 Elective	3

Elective	3 Elective	3
	15	15

Total Credits 121-125

Students must take two semesters of core science courses in any combination of Physics, Chemistry, or Biology with their associated labs. One of the natural science courses with its associated laboratory will satisfy the FA2 requirement. The other natural science courses with their associated laboratories will satisfy the Basic Sciences requirement for the major.

² Students who receive exam credit for Biology and Physics will be waived from the corresponding lab course(s) but will not earn credit for the lab(s).

Accreditation Statement

The Bachelor of Science in Computer Science degree program is accredited by the Computing Accreditation Commission of ABET (https:// www.abet.org/accreditation/get-accredited/accreditation-step-by-step/ self-study-report/dual-templates-for-cac/) under the General Criteria and the Program Criteria for Computer Science and similarly named computing programs.

Program Educational Objectives

What our graduates should be able to do several years after graduation:

- Successfully engage in professional practice in the computing sciences or apply computer science tools and techniques to solving problems in other disciplines.
- Engage in continuous learning, such as advanced study in the computing sciences or its applications to other disciplines.
- Work successfully in both independent and team environments, including diverse and interdisciplinary teams.
- Lead teams, support and uplift team members, and provide vision for innovation.
- Behave in a professional and ethical manner, with due consideration for the impact of one's work on others.
- · Practice inclusion and advocate for diversity.

Student Outcomes

Students graduating with a B.S. in computer science will be able to:

- 1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- 3. Communicate effectively in a variety of professional contexts.
- 4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- 6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

Enrollments and Graduates Enrollment*

LINOINICIA					
Term	Total	First-Year	Sophomore	Junior	Senior
Fall 2017	312	72	76	73	91
Fall 2018	340	61	113	88	78
Fall 2019	384	75	90	117	102
Fall 2020	422	83	108	98	133
Fall 2021	436	92	108	118	118
Fall 2022	528	107	136	145	140
Fall 2023	515	97	128	144	146
Fall 2024	487	79	120	129	159

B.S. Degrees Awarded**

Academic Year	Total
2017-2018	87
2018-2019	74
2019-2020	99
2020-2021	131
2021-2022	110
2022-2023	133
2023-2024	138

* Based on Fall census each year, 1st majors only.
** Includes August, December, and May conferrals each academic year.