

Agnes Scott College Dual Degree Computer Science Program with Emory University

Student Information Sheet

The Dual Degree Computer Science Program allows students to combine a liberal arts education with a computer science degree from Emory University. The participating student will attend Agnes Scott College for three years and Emory University for two years. Upon completion of the academic requirements of both institutions, the student will receive a Bachelor of Arts (B.A.) degree from Agnes Scott College and a Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) in Computer Science degree from Emory University.

Students must earn a minimum 3.0 average (on a 4.0 scale) in all course work. They must have a minimum 3.0 average in all math and science courses required by the program, with no grades lower than a C in these math and science courses. Students must earn a C or higher in courses used to fulfill Emory's Continuing Writing Requirement.

Prior to enrolling at Emory, a student should have completed or earned credit for the following math and science courses:

B.A. in Computer Science: Calculus I and II (MAT 118 & 119); Linear Algebra (MAT 206; prerequisite = MAT 119); Intro to Computer Science II (Emory CS 171; prerequisite = CS 170)

B.S. in Computer Science: B.A. courses plus PHY 110 & 111 (calculus-based intro sequence, with labs);
PHY 242 & 243 (Analog Electronics & Digital Electronics, 2 credits each).
Students whose intended major does not require calculus-based physics may take
PHY 102 & 103 then take PHYS 234 (Digital Electronic & Microprocessors) at
Emory.

Note that these are the minimum requirements. The suggested course sequences below provide more information about appropriate courses, based on a student's tracking toward an Agnes Scott College major. Entering first-year students who are placed into MAT 119 may request permission to take PHY 110 concurrently. Students who receive credit for MAT 118 and 119 should take physics during their first year if they are considering the B.S. in Computer Science. Advanced Placement (AP) and International Baccalaureate (IB) credit awarded by Agnes Scott will be accepted by Emory as meeting the general education and/or major requirements.

Timeline for Program Admission

Completion and submission of Intent form: March 1 of the first year

Submission of transfer application to Emory: Junior year, on or before the November deadline posted on the Emory Office of Admissions web site.

General Education Requirements

An Agnes Scott student who has completed all the ASC Specific Standards and Distributional Standards will also have satisfied almost all of the Emory General Education Requirements. Students must complete at least one designated Continuing Writing course at Emory. A student must also satisfy the physical education requirements at both institutions. Agnes Scott PE courses may be used to satisfy Emory requirements. Students should make every attempt to complete all of the general education requirements by the end of the junior year, to have maximum flexibility to take Emory math and CS courses during the fourth and fifth years.

A description of the Emory College of Arts and Sciences General Education Requirement can be found at http://college.emory.edu/home/academic/general_education/. Students should enroll in the Agnes Scott Dual-Degree Computer Science Moodle page and review the degree requirements. Enrollment also means that an interested student will be included on email messages about program changes and other topics of interest.

Suggested Course Sequences

Agnes Scott students may declare any major by the end of the sophomore year, and will enroll in courses during junior year that are appropriate for that major. Suggested course sequences are shown below for selected ASC majors. Similar sequences may be planned in consultation with advisers for students majoring in other disciplines. Students who transfer to Emory to earn the B.A. or B.S. in Computer Science are not required to complete their Agnes Scott major but may choose to do so in consultation with their Agnes Scott or Emory adviser. Those who do not transfer or who are readmitted for the senior year at Agnes Scott are on track to complete their major in the fourth year. Students may complete a second major or a minor at Emory in consultation with their Emory adviser.

Students are expected to enroll full time, with a typical load of 16 semester hours and no fewer than 12 hours. The tables below outline the Math/CS courses required to complete the Emory CS major. Students take additional courses not listed, including general education courses and, when desired, courses required to complete a second major.

1. ASC BA Math Student

1.a. Emory BA CS Major

	Fall semester	Spring semester
First Year (ASC)	MAT 118	MAT 119
Second Year (ASC)	MAT 204 CS 170 (Emory)	MAT 206 or 220 CS 171 (Emory)
Third Year (ASC)	MAT 3xx CS 224 (Emory)	MAT 206 or 220 MAT 328 ¹ or MAT 3xx
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory)	CS elective (Emory)

1.b. Emory BS CS Major

	Fall semester	Spring semester
First Year (ASC)	MAT 118	MAT 119
Second Year (ASC)	MAT 204 Physics 110/110L ² CS 170 (Emory)	MAT 206 or 220 Physics 111/111L CS 171 (Emory)
Third Year (ASC)	MAT 3xx CS 224 (Emory) Physics 242	MAT 206 or 220 MAT 328 or MAT 3xx Physics 243
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory) CS elective (Emory)	CS 424 (Emory) CS elective (Emory)

2. ASC BA Physics Student

2.a. Emory BA CS Major

	Fall semester	Spring semester
First Year (ASC)	MAT 119 PHY 110/110L	PHY 111/111L MAT 206

¹ If MAT 328 is not available, an additional CS elective would have to be taken at Emory.

² Not required for Emory B.A. (PHY 102/103 accepted) but required by ASC if taking our electronics courses (PHY 242, 243)

	Fall semester	Spring semester
Second Year (ASC)	CS 170 (Emory) PHY 210 PHY 242 (2) PHY 3XX	CS 171 (Emory) PHY 211 PHY 243 (2) PHY 3XX
Third Year (ASC)	CS 224 (Emory) PHY 3XX	PHY 3XX MAT 220 MAT 328 or CS elective
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory)	CS elective (Emory)

2.b. Emory BS CS Major

	Fall semester	Spring semester
First Year (ASC)	MAT 119 PHY 110/110L	PHY 111/111L MAT 206
Second Year (ASC)	CS 170 (Emory) PHY 210 PHY 242 (2) PHY 3XX	CS 171 (Emory) PHY 211 PHY 243 (2) PHY 3XX
Third Year (ASC)	CS 224 (Emory) PHY 3XX	MAT 328 or CS elective MAT 220 PHY 3XX
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory) CS elective (Emory)	CS 424 (Emory) CS elective (Emory)

3. ASC BA Chemistry Student

3.a. Emory BA CS Major

	Fall semester	Spring semester
First Year (ASC)	MAT 118 CHE 101/101L	MAT 119 CHE 102/102L
Second Year (ASC)	CHE 201/201L PHY 110/110L ³ CS 170 (Emory)	CHE 202/202L PHY 111/111L CS 171 (Emory)
Third Year (ASC)	CHE 301 CHE 342L (1) CS 224 (Emory)	CHE 302 CHE 343L (1) MAT 206
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory)	CS elective (Emory)

3.b. Emory BS CS Major

	Fall semester	Spring semester
First Year (ASC)	MAT 118 CHE 101/101L	MAT 119 CHE 102/102L
Second Year (ASC)	CHE 201/201L PHY 110/110L CS 170 (Emory)	CHE 202/202L PHY 111/111L CS 171 (Emory)

³ Not required for Emory B.A. (PHY 102/103 accepted) but required for ASC chemistry major

	Fall semester	Spring semester
Third Year (ASC)	CHE 301 CHE 342L (1) Physics 242 (2) CS 224 (Emory)	CHE 302 CHE 343L (2) MAT 206 Physics 243 (2)
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory) CS elective (Emory)	CS 424 (Emory) CS elective (Emory)

4. ASC BA Economics Student

4.a. Emory BA CS Major

	Fall semester	Spring semester
First Year (ASC)	ECO 101 MAT 118	ECO 102 MAT 119
Second Year (ASC)	ECO 307 MAT 115 ⁴ CS 170 (Emory)	ECO 306 ECO 3XX or 4XX (elective) MAT 206 CS 171 (Emory)
Third Year (ASC)	ECO 338 ECO 3XX or 4XX (elective) CS 224 (Emory)	ECO 3XX or 4XX (elective)
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory)	CS elective (Emory)

4.b. Emory BS CS Major

	Fall semester	Spring semester
First Year (ASC)	ECO 101 MAT 118	ECO 102 MAT 119 MAT 115
Second Year (ASC)	Physics 110/110L CS 170 (Emory) ECO 3XX or 4XX (electives) - 2 courses	ECO 306 MAT 206 Physics 111/111L CS 171 (Emory)
Third Year (ASC)	ECO 307 ECO 338 Physics 242 (2) CS 224 (Emory)	Physics 243 (2) ECO 3XX or 4XX (elective)
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory) CS elective (Emory)	CS 424 (Emory) CS elective (Emory)

⁴ Fulfills economics major requirement (statistics) and is prerequisite for ECO 338 but does not count as CS elective at Emory. Student will need an additional CS elective at Emory.

5. ASC BA Mathematics-Economics Student

5.a. Emory BA CS Major

	Fall semester	Spring semester
First Year (ASC)	ECO 101 MAT 118	ECO 102 MAT 119 MAT 115 ⁵
Second Year (ASC)	ECO 307 CS 170 (Emory)	ECO 306 MAT 206 or MAT 220 CS 171 (Emory)
Third Year (ASC)	ECO 338 MAT 309 CS 224 (Emory)	MAT 206 or MAT 220 ECO elective MAT elective (328 if avail)
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory)	CS elective (Emory)

5.b. Emory BS CS Major

	Fall semester	Spring semester
First Year (ASC)	ECO 101 MAT 118	ECO 102 MAT 119 MAT 115
Second Year (ASC)	Physics 110/110L CS 170 (Emory) ECO 307	ECO 306 MAT 206 or MAT 220 Physics 111/111L CS 171 (Emory)
Third Year (ASC)	ECO 338 MAT 309 Physics 242 (2) CS 224 (Emory)	Physics 243 (2) MAT 206 or MAT 220 ECO elective MAT elective (328 if avail)
Fourth Year (Emory)	CS 255 (Emory)	CS 323 (Emory)
Fifth Year (Emory)	CS 450 (Emory) CS elective (Emory)	CS 424 (Emory) CS elective (Emory)

At Agnes Scott College the student should:

- Contact the Dual Degree Computer Science Program adviser prior to or during the first year at Agnes Scott to ensure meeting the prerequisite requirements for the program.
- Work with her adviser and the Dual Degree Computer Science Program adviser to plan a course of study that fulfills all of the Agnes Scott B.A. degree requirements and the Emory prerequisites (see table below).
- Complete and submit the "Intention to Pursue the Dual-Degree Computer Science Program" form during her first year at Agnes Scott (preferably by March 1), to ensure a space in courses that require cross-registration.
- Earn a minimum 3.00 average (on a 4.0 scale) in all course work.
- Have a minimum 3.00 average in all math and science courses required by the program, with no grades lower than a C in these math and science courses.
- Obtain a positive recommendation from the Dual Degree Computer Science Program adviser.
- Submit transfer application materials to Emory University, as specified by the liaison to Agnes Scott College who represents Emory University, including:
 - ⇒ an application for admission to the computer science program at Emory
 - ⇒ letter of recommendation from Agnes Scott's Dual Degree Computer Science Program adviser

⁵ Prerequisite for ECO 338 but does not count as CS elective at Emory. Student will need an additional CS elective at Emory. Challenge is in scheduling MAT 328 (alt year) before ECO 338.

- ⇒ official college transcript(s) from all institutions attended
- ⇒ TOEFL score, if English is a second language
- ⇒ Other documents required by Emory's College of Arts and Sciences

At Emory University the student should:

8. Complete all requirements for the B.A. or B.S. in computer science.
9. Complete a Continuing Writing Course to finish this general education requirement.
10. Complete the remainder of the 64 credit hours at Emory required for the degree, and other requirements required for all BA and BS degrees at Emory.
11. Complete the requirements for a second major or a minor, if desired.

Upon successful completion of the two years of upper division computer science coursework at Emory University, students will receive a B.A. degree from Agnes Scott College and a B.A. or B.S. in computer science from Emory University.

Any dual-degree candidate who does not successfully complete the requirements for the Emory degree will be considered for readmission to ASC in order to complete the requirements for the B.A. degree at Agnes Scott College.