BS Tracking Form for CS Major requirements

Effective Fall 2016

Name: _____ **ID#:** _____ **Advisor:** _____

Two Introductory CS Courses

121 *Intro to Problem Solving*
Semester:
Grade:

187 *Data Structures*
Semester:
Grade:

Four Math Courses

M131 *Calc I*
Semester:
Grade:

M132 *Calc II*
Semester:
Grade:

M233 *Multivariate Calc* or **STAT515** *Stats I*
Semester:
Grade:

M235 *Linear Algebra*
Semester:
Grade:

Four CS Core Courses

(prereq: 187)

220 *Programming Methodology*
Semester:
Grade:

230 *Comp Sys Principles*
Semester:
Grade:

(prereq: 187 & M132)

240 *Reasoning Under Uncertainty*
Semester:
Grade:

250 *Intro to Computation*
Semester:
Grade:

Students are strongly advised not to take 220 and 230, or 240 and 250 together in the same semester.

Eight Upper-Level Courses

(prereq: 250) **311** *Algorithms*
Semester:
Grade:

CS 300+
_____
Semester:
Grade:

CS 300+ *IE Req, if 320 or 326
_____
Semester:
Grade:

CS 300+
_____
Semester:
Grade:

- ***UPD may approve a maximum of 3 credits of CS 499T/P or CS 396/496 to satisfy a CS elective at the appropriate level.***
- Some graduate (600) level+ courses are permitted, but often have twice the workload of undergrad courses.

CS 300+ **Or, Outside Approved Elective
_____
Semester:
Grade:

CS 400+
_____
Semester:
Grade:

CS 400+
_____
Semester:
Grade:

CS 400+
_____
Semester:
Grade:

**Approved Outside Elective courses that may count in place of one CS 300+:
ECE 353, ECE 547, ECE 668, LINGUIST 301, MATH 411, MATH 545, MATH 551, MATH 552, MATH 571, INFO 324

Integrative Experience

JrYr Writing

Univ requires IE and JYW courses be taken at UMass Amherst. Secondary CS Majors should satisfy IE and JYW Reqs in primary major.

Choice of 320*, 326* _____
Semester:
Grade:
**320 or 326 may also satisfy an upper-level elective.*

305 *Social Issues in Computing* (Or JYW in another dept)
Semester:
Grade:

Major GPA

(See ARR) _____

Minimum 2.0 cumulative GPA in all courses applied to major. Pass/Fail not allowed in major.

CNS Lab Science Courses (8 credits)

CHEM 111 (or 121)
CHEM 112 (or 122)
GEOL 101/lab, (or 103/131, or 105/131)
PHYSIC 151 (or 181)
PHYSIC 152 (or 182)

_____ Semester: Grade:

_____ Semester: Grade:

Please see the section on Lab Science Courses at: https://www.cics.umass.edu/ugrad-education/details-bs-requirements

University and GenEd requirements should be checked on SPIRE. **This form is for guidance only.**

Revised March 19, 2026

Specialized Areas of Study in CS

Select courses in specialized areas of study, or take courses across disciplines to satisfy Eight (8) upper-level requirements for the BS:

- **311 Algorithms**
- **3 CS300+ (may include IE Req)**
- **3 CS400+**
- **1 CS300+ (or Outside Approved Elec)**

Courses offered in CS cover many areas, including:
Artificial Intelligence
Computer Architecture
Data Science
Information Retrieval
Natural Language Processing
Networking
Robotics, Vision and Graphics
Security and Privacy
Software Engineering
Software Systems
Theory of Computation

Course Offering Plan:
https://www.cics.umass.edu/content/course-offering-plan

MY PLANNED UPPER-LEVEL CS

1. 311
2. CS300+ (IE 320||326) _ _ _
3. CS300+ _ _ _
4. CS300+ _ _ _
5. CS400+ _ _ _
6. CS400+ _ _ _
7. CS400+ _ _ _
8. CS300+/OE _____ _ _ _

MY PLANNED UPPER-LEVEL CS

1. 311
2. CS300+ (IE 320||326) _ _ _
3. CS300+ _ _ _
4. CS300+ _ _ _
5. CS400+ _ _ _
6. CS400+ _ _ _
7. CS400+ _ _ _
8. CS300+/OE _____ _ _ _

MY PLANNED UPPER-LEVEL CS

1. 311
2. CS300+ (IE 320||326) _ _ _
3. CS300+ _ _ _
4. CS300+ _ _ _
5. CS400+ _ _ _
6. CS400+ _ _ _
7. CS400+ _ _ _
8. CS300+/OE _____ _ _ _

Junior Year Writing (JYW) Requirement: Primary computer science majors must take CompSci 305 *Social Issues in Computing*. The University's JYW requirement must be taken at UMass Amherst. Secondary CS Majors should complete the JYW requirement in their primary major.

Integrative Experience (IE) Requirement: Students satisfy the University's IE Requirement by taking an approved IE course in their primary major at UMass Amherst. CompSci 320 *Software Engineering* and CompSci 326 *Web Programming* (Spring 2014 or later) are currently the designated IE courses for CS and also count as a CS Elective.

When does a class count for the CS major?
A computer science major may not use any course taken on a pass/fail basis to fulfill the computer science program requirements (including mathematics, lab science, and computer science introductory, core, and upper-level elective courses). Students must maintain an average grade of at least C (2.0) in all courses used to satisfy the major degree requirement (see major GPA on the ARR). While courses with grades of C-, D+, or D may be counted toward the degree, students normally repeat these courses so that the new grade will replace the old in their GPA calculation (Check Academic Regulations for rules about repeating courses). A grade *below* C will normally not suffice as a prerequisite for a later course. For example, enrolling in COMPSCI 220 requires a grade of "C or better" in COMPSCI 187.

What is an approved CS elective? https://www.cics.umass.edu/degrees
Any regularly numbered COMPSCI course at the 300-level or above may be used as an elective, excluding COMPSCI 305, or if it is specifically barred as an elective in its course description. Many COMPSCI 500-level courses that are open to undergraduates may also be used for CS Electives.

- Experimental courses (x90), seminar courses (x91) and special topics (x97) may only be used as CS electives at the 300-level (or above) if specifically stated in the course description.
- CS Capstone courses (499T/P) may be used with UPD approval*.
- Independent studies (x96) at the 300-level (or above) are reviewed for elective credit via the independent study approval process when registering*.
- If a course is not showing correctly on the ARR, we will assume that you will use it for the major and will fix your ARR. **Only email upd@cs.umass.edu if you opt not to use any of these courses.**

NOTE: *Only 3 credits of either COMPSCI 499P/T or COMPSCI 396/496/596 may be used toward CS Major requirements.

Details about your ARR and how/when we will fix it:
ARR for CS Majors may show missing major requirements if students are taking **COMPSCI x90-x99** courses. Course descriptions note when these types of courses satisfy CS Electives (300-, 400-, 500-level). Graduate level (690-699) courses will not indicate whether it counts for CS Major requirements in the course description and are vetted by the UPD. https://www.cics.umass.edu/ugrad-education/courses

REMEMBER: No P grades for major requirements.

IMPORTANT: The ARR may not get fixed for **in-progress** courses (or even completed courses in some cases) until *at least after mid-semester date*, but it could be closer to, or at the time of major clearance during your last semester (after grades post). Why?

- Some students take more courses than needed for a particular requirement group, i.e., CS300+, and we try to use the higher grades when 'fixing' the ARR.
- Exceptions or 'fixes' on the ARR are not bumped out if you do better in another course that satisfies the same requirement group.
- Students cannot elect P/F on major requirements, so we wait until at least after mid-semester date before fixing the ARR. NOTE: if we decide to fix an ARR before this and a student receives a P grade, then the course will be removed from satisfying a requirement at the time of major clearance, which may impact degree completion.
- Some students prefer to 'save' 500-level+ course(s) for a graduate program, when applicable (course cannot count toward *any* undergraduate degree requirements -or- toward the 120 credits/150 credits for a dual degree).