

## Preparing for CIS / MACS major

The CIS and MACS majors begin with CIS 210 Computer Science I and Math 231 Discrete Math I, and take approximately three to four years for completion of all major coursework. Any CIS or Math preparations should be added to this timeframe. It can take one to three terms to prepare to begin the major.

1. Students who need to complete math courses (through Math 112) and do not have prior programming experience are **strongly encouraged** to take introductory programming courses such as CIS 122 (recommended) and/or CIS 111. Students with prior programming experience may also benefit from taking CIS 122 or CIS 111. CIS 110 does not cover introductory programming, but provides a helpful overview of topics in computing.

2. Math 112 or higher equivalence is demonstrated by college-level coursework, AP Calculus scores, or UO Math Placement (ALEKS) scores.

3. Students must earn grade B- or higher in CIS 210, 211, 212 and Math 231, 232 for automatic advancement to upper-division CIS courses.

Math Readiness Level	Blue = CIS / MACS Prep Courses		Yellow = CIS / MACS Major Courses		Green = CIT minor courses
	<b>Recommended Courses for First Academic Year</b>				
	Fall	Winter	Spring	Fall	Notes
Math 101	CIS 110 Math 101	CIS 111 Math 111	CIS 122 Math 112	CIS 210 Math 231 or Math 251	One year of math and/or programming preparation is needed. For students with no programming experience, CIS 122 (recommended) and/or CIS 111 are <i>strongly encouraged</i> before beginning the major. CIS 110 is also recommended.
			CIT 281	CIT 381	
Math 111	CIS 110 Math 111	CIS 111 Math 112	CIS 122 Math 251	CIS 210 Math 252	
			CIT 281	CIT 381	
Math 112	CIS 122 Math 112	CIS 210 Math 231 or Math 251	CIS 211 Math 232 or Math 252	CIS 212 Math 251 or Math 231	One term of math and/or programming preparation is needed. For students with no programming experience, CIS 122 is strongly recommended before beginning the major.
Math 251	CIS 210 Math 231 or Math 251	CIS 211 Math 232 or Math 252	CIS 212 Math 251 or Math 231	CIS 3XX Math 252 or Math 232	Students who are ready for Math 251 or higher are ready and encouraged to begin the major with CIS 210. Students who do not have any prior programming experience may choose to take CIS 122 before registering for CIS 210, but this is not required.
AP CS A Score = 4 or 5	CIS 212 Math 231, See CIS Advisor	CIS 313/314/322* Math 232, See CIS Advisor	See CIS Advisor	See CIS Advisor	Students who scored 4 or who are not prepared for Math 251 may want to begin the major with CIS 210; see CIS advisor.