

# AEROSPACE ENGINEERING AND MECHANICS beginning with Math 1155--intensive precalculus

## Freshman Year

Fall Semester	crs	Spring Semester	crs
Math 1155 Intensive precalc	5	Math 1271 Calculus I	4
Chem 1021 Chem Princ I [placement into course or 1015]	4	Phys 1301W Physics I [&Math 1271 or &Math 1371]	4
Lib Ed*	3 or 4	Lib Ed*	3 or 4
Lib Ed*	3 or 4	Lib Ed*	3 or 4

\*You should try to take English composition in the freshman year.

## Sophomore Year

Fall Semester	crs	Spring Semester	crs
CSci 1113 Intro to C/C++ [Math 1271 or 1371]	4	AEM 2011 Statics [Phys 1301, &Math 2263]	3
Math 1372 Calculus II [1371 or 1271]	4	UD Math 2374 or 2263 Multivariable calc [Math 1272 or 1372]	4
Phys 1302W Physics II [1301, &Math 1372 or &1272]	4	Lib Ed	6 to 8
Lib Ed	3 or 4		

If you take AEM 2012 and Math 2373 in the summer after your sophomore year, you could graduate in four years.

**For engineering degrees, most lib eds must fill both a core requirement and a theme requirement. There is room in the four-year plan for only six lib ed courses.**

Shaded courses are offered only once each year.

Course prerequisites are indicated under the course number.

UD You must have at least a 2.30 technical GPA for admission to upper division Aerospace Engineering and Mechanics. This GPA includes all calculus, physics, chemistry, geology, computer science, and engineering courses required for any degree in IT. In addition, courses with UD need to be completed before you apply, unless you have at least a 2.60 tech GPA and the courses in progress.

Students admitted to the University prior to Fall 2006 need a 2.00 technical GPA.

For students admitted to the University prior to Fall 2002, the 2.00 GPA includes all courses taken at the U.

**Math 2243 and 2373 are Linear Algebra and Differential Equations.  
Math 2263 and 2374 are Multivariable Calculus and Vector Analysis.**

## Junior Year

Fall Semester	crs	Spring Semester	crs
UD AEM 2012 Dynamics [AEM 2011, Math &2373]	3	AEM 2301 Mechanics of Flight [&Math 2373, Phys 1301]	3
MatS 2001 Mech. Prop. (no lab req'd) [Chem 1021, Math 1372 or 1272, Phys 1301, 2nd yr IT]	3	AEM 3031 Deformable Bodies [2011 or 2021, Math 2374, &Math 2373]	3
Math 2373 or 2243 Lin alg/diff eqs [Math 1272 or 1372]	4	EE 3005 Fundamentals EE [Math 2373, Phys 1302]	4
Phys 2503 [Phys 1302, Math 1372]	4	EE 3006 Fundamentals EE lab [3005, or &3005]	1
		Elective	1

## Senior Year

Fall Semester	crs	Spring Semester	crs
AEM 4201 Fluid Mechanics [2012, Math 2373, Math 2374]	4	AEM 4202 Aerodynamics [UD, 4201]	4
AEM 4301 Orbital Mechanics [2012, Math 2373]	3	AEM 4303W Flight Dyn and Control [UD, 2301 or #]	4
ME 3324 Thermo and Heat Transfer [Chem 1021, Phys 1301, Math 2243]	3	AEM 4501 Aerospace Structures [UD, 3031]	3
Tech Elective	3	AEM 4601 Instrumentation Lab [UD, EE 3005-06, CS 1113]	3

## 5th year

Fall Semester	crs	Spring Semester	crs
AEM 4331 Aero. Vehicle Des I [2301, 4202]	4	AEM 4203 Aerospace Propulsion [AEM 4202]	4
AEM 4602W Aeromechanics Lab (WI) [4201, 4501, 4601, EngC 1011]	4	Tech Elective	3
Tech Elective	3		

Courses with a double-lined border are Writing Intensive (WI) courses and count toward your writing intensive requirement. You are required to completed four writing intensive courses, one of which must be at the 3xxx-level and one of which must be in your major.