Aerospace Engineering Catalog 2023

Fall 16 hours	**Math 132 or 141 or 147 (3-4) (QR) FA,SP,SU** Math 132 Prereq- Math 131 Math 141 Prereq- ACT Math 28 or SAT Math 660	**EF 142 or 151 or 157 (4) (EI) FA, SP** EF 142 Prereq- EF 141 with C- or better and Math 131 EF 142 Coreq- Math 132 EF 151 Coreq- 141/147 or higher and EF 105 or COSC 101 or CS 102	**EF 105 (1) FA, SP** Coreq- EF 151 or 157	**Chem 122(3) and 123(1) or 128 (4) (NS) FA, SP, SU** Prereq-Math 119; recommended background in Math 131	**English 101 or 131 (3) FA, SP, SU** 101 Standard; 131 English as Second Language	
Spring 16 hours	**Math 142 or 148 (4) (QR) FA, SP, SU** Prereq- Math 132 or 141 or 147	**EF 152 or 158 (4) (NS and EI) FA, SP, SU** Prereq-EF 142/151/157 with C or higher Coreq- Math 142 or 148	**ME 202 (2) FA, SP, SU** Coreq- EF 152 or 158 and Math 142 or 148	**Vol Core (3) FA, SP, SU** Expanded Perspectives- choose from AH, AAH, GCUS, GCI, or SS	**English 102 or 112 or 298 or 132 (3) FA, SP, SU** 102 Prereq 101; 112 Prereq is AP 101 and Test Scores; 298 Prereq University Honors only; 132 Prereq 131 ESL	
Fall 19 hours	**Math 241 or 247 (4) FA, SP, SU** Prereq- Math 142 or 148	**AE 201 (1) FA** Restricted to engineering majors.	**AE 210 (2) FA, SP** AE or ME majors. Sophomore or Junior or Senior	**ME 231 (3) FA, SP, SU** Prereq- EF 152 or 158 AND ME 202 with C or better	**Physics 231 (3) FA, SP, SU** Prereq- Phys135 or EF 151 and 152 Coreq- Math 142 or 148	**Vol Core (3) FA, SP, SU** Arts and Humanities (AH) **Vol Core (3) FA, SP, SU** Global Citizenship United States (GCUS)
Spring 17 hours	**Math 231 or 237 (3) FA, SP, SU** Prereq- Math 142 or 148	**EF 230 or 237 (2) FA, SP** Prereq- EF 105 or CS 102 Coreq- EF 152/158	**ME 321 (3) FA, SP, SU** Prereq- ME 202 with C or better AND Math 142/148 with C or better	**Vol Core (3) FA, SP, SU** Expanded Perspectives- choose from AH, AAH, GCUS, GCI, or SS	**ECON 201 or 207 (4) FA, SP, SU** Vol Core - Social Science (SS)	**Math 200 (2) FA, SP** Prereq- Math 142 or 148
Fall 16 hours	**ME 331 (3) FA, SP, SU** Coreq- Math 241 or 247	**AE 341 or 347 (3) FA, SP, SU** Prereq- ME 231 with C or better and Math 241 or 247 with C or better	**AE 370 or 377 (4) FA, SP** Coreq- AE 341	**ECE 301 (3) FA, SP** Prereq- Math 231 or 237 with C or better	**ME 391 or 397 (3) FA, SP, SU** Prereq- Math 231 or 237; Math 241 or 247 and Math 200,251/257 and EF 230 ALL with grades of C or better	
Spring 15 hours	**AE 363 (3) SP** Prereq- ME 321	**ME 363 or 367 (3) FA, SP, SU** Prereq- ME 231 and Math 231 with grades of C or better	**AE 351 (3) SP** Prereq- AE 341/347 and ME 331	**ME 344 (3) FA, SP, SU** Prereq- ME 331 and 391 or 397 and AE 341 or 347	**AE 345 (3) (EI) FA, SP, SU** Prereq- ME 321 Coreq- AE 341/347 or BME 341/347, and ME 363/367 or BME 363/367, and ECE 301	
Fall 15-18 hrs.	**AE 422 (3) FA** Prereq- AE 351 and 370 or 377	**AE 425 (3) FA** Prereq- AE 351	**AE 424 (3) FA** Prereq- AE 351 Coreq- ME 344	**AE 450 (3) FA** Prereq- AE 351, AE 370/377, AE 363 Coreq- AE 425, ME 344, AE/BME/ME majors	**Deptmental Elective (3)** Choose from approved courses	**Vol Core (1 course) FA, SP, SU** Oral Communication (OC)
Spring 15 hours	**AE 449 (3) (WC) SP** Prereq- AE 345, 351, and 425 English 102, 112, 132, or 298	**AE 460 (3) (AOC) SP** Prereq- AE 422, 450, AE, BME, ME majors only	**Vol Core (3) FA, SP, SU** Global Citizenship International (GCI)	**Departmental Elective (3)** Choose from approved courses	**Departmental Elective (3)** Choose from approved courses	

Departmental Electives Choose from: Any 400 level AE course not otherwise required for the major, ME 315, 365, 366, 405, 451, 463, 466, 470, 472, 475 or 477, 476, 480.
Other courses require prior approval by the department.

Full Status Progression
A lower-division student may apply for progression to upper division after completing EF 152/158, CHEM 122 and 123 or 128 , MATH 231 , ME 202, ME 231 and ME 321 with a grade of C or better in each, and an overall GPA of at least 2.4. Students who have not satisfied the requirements for full status will be dropped from departmental class rolls in upper division courses.

Provisional Status Progression
Students who have completed EF 152/158, CHEM 122 and 123 or 128 , MATH 231 , ME 202, ME 231 and ME 321 with a grades of C or better and have an overall GPA between 2.0 and 2.4 may apply for provisional status. The granting of provisional status is based on the availability of space in departmental programs after full status students have been accommodated. Provisional status students are required to demonstrate their ability to perform satisfactorily in upper-division by attaining a minimum GPA of 2.0 in the first 12 hours of 300-level required engineering courses. Award of upper-division full status is dependent upon this performance. Students with an overall GPA less than 2.0 will not be admitted to upper-division. Students who have not progressed to upper-division will be dropped from departmental class rolls.

Transfer Students
Students transferring more that 26 hours from another institution are considered transfer students. Transfer students must meet the same criteria as non-transfer students, using transfer grades for acceptable substitutions. Transfer courses with grades below a C will not be accepted to fulfill any degree requirements.

Departmental Academic Standing
The faculty of the Department of Mechanical, Aerospace and Biomedical Engineering expect all students who enter to make progress toward graduation. To graduate from the department, a student must earn a minimum grade point average of 2.0 in all departmental courses counted toward the degree. Students not meeting the required departmental GPA may be dropped from their major.
In addition, the University Academic Good Standing Policies apply to all students.

AE Graduation Requirements
A minimum GPA of 2.0 in all departmental courses counted toward the degree taken at the University of Tennessee, Knoxville, is required for graduation. No more than two departmental courses in which a C- or lower is the highest grade earned may be counted toward graduation. This is in addition to the university's graduation requirements.

Students also have opportunities for an Honors Concentration and/or a five year BS/MS program. See the Undergraduate Catalog for details and requirements.

Volunteer Core courses highlighted in light orange.