

MECHANICAL ENGINEERING SPECIALIZED ASSOCIATE IN ARTS DEGREE

Mechanical Engineering Specialized Associate in Arts Transfer Degree (CIP#: 14.1901)

The Mechanical Engineering Specialized Associate in Arts Transfer (SAAT) degree is designed for students who may need to complete more than 60 credits to prepare for transfer to the Bachelor of Science (B.S.) in Mechanical Engineering program at the University of Central Florida (UCF).

Students awarded the Mechanical Engineering SAAT degree are guaranteed admission to the UCF B.S. in Mechanical Engineering program. The total credit hours for this degree range from 60 to 83, unlike the associate in arts (A.A.) degree, which requires no more than 60 credit hours. Students cannot earn both the SAAT degree and the A.A. degree. (<https://catalog.valenciacollege.edu/degrees/associateinarts/>) However, they may change their major to the A.A. degree after speaking with their Student Success Coach (<https://valenciacollege.edu/students/advising/student-success-coach.php>), depending on their unique circumstances.

The SAAT degree includes general education requirements, common program prerequisites (CPPs), and courses required for the UCF B.S. in Mechanical Engineering program, as listed in the Program Requirements tab. Students must also meet all applicable program, credit, and institutional requirements, including completing some courses with a grade of C (2.0) or better, to earn this degree. Visit the Graduation Requirements section (<https://catalog.valenciacollege.edu/graduationrequirements/>) in this catalog to learn more about these requirements.

The total credit hours for this degree may exceed 60, requiring more than two years to complete if prerequisite coursework is required. A student's math placement and high school coursework in algebra, chemistry, and a foreign language will determine whether prerequisite courses are required. For example, a student may complete the degree with 72 credits if they begin MAC 1105 College Algebra based on math placement scores and have met the high school foreign language requirement. The total number of credits required is unique to each student.

Start Right - Pathway Plan

You are encouraged to meet with your Student Success Coach (<https://valenciacollege.edu/students/advising/student-success-coach.php>) to develop an academic plan that includes all required coursework for this degree. You may also visit the Degree Pathways website (<https://valenciacollege.edu/students/degree-pathways/>) for course sequencing recommendations.

Contacts

Future Students

For general enrollment questions, on-campus or virtual assistance is available through First Stop (<https://valenciacollege.edu/students/student-services/first-stop.php>) or by calling Enrollment Services.

Current Students

Your Student Success Coach contact information can be found in MyVC (<https://myvc.valenciacollege.edu/>). Visit the Advising Services website (<https://valenciacollege.edu/students/advising/student-success-coach.php>), then click the 'Meet with your Success Coach' button. Your Student Success Coach's contact information is in your Student Profile.

General Education Standards

In accordance with 1007.25, Florida Statute, courses included in the General Education program align with the following standards:

- **Communication** courses afford students the ability to communicate effectively, including the ability to write clearly and engage in public speaking.
- **Humanities** courses afford students the ability to think critically through the mastering of subjects concerned with human culture, especially literature, history, art, music, and philosophy, and must include selections from the Western canon.
- **Social science** courses afford students an understanding of the basic social and behavioral science concepts and principles used in the analysis of behavior and past and present social, political, and economic issues.
- **Natural science** courses afford students the ability to critically examine and evaluate the principles of the scientific method, model construction, and use the scientific method to explain natural experiences and phenomena.
- **Mathematics** courses afford students a mastery of foundational mathematical and computation models and methods by applying such models and methods in problem solving.

Program Requirements

Communications

ENC 1101	FRESHMAN COMPOSITION I ^{++~} (GR)	3
or ENC 1101H	FRESHMAN COMPOSITION I - HONORS	
ENC 1102	FRESHMAN COMPOSITION II ^{++~} (GR)	3
or ENC 1102H	FRESHMAN COMPOSITION II - HONORS	
SPC 1608	FUNDAMENTALS OF SPEECH (SPC 1608 or SPC 1608H is preferred by UCF's Engineering program.) ^{++~} (GR)	3
or SPC 1608H	FUNDAMENTALS OF SPEECH - HONORS	
or SPC 1017	INTERPERSONAL COMMUNICATION	
or SPC 1017H	INTERPERSONAL COMMUNICATION HONORS	

Mathematics

MAC 2311	CALCULUS WITH ANALYTIC GEOMETRY I ^{++~} (GR)	4
or MAC 2311H	CALCULUS WITH ANALYTIC GEOMETRY I - HONORS	
MAC 2312	CALCULUS WITH ANALYTIC GEOMETRY II ^{++~} (GR)	4
or MAC 2312H	CALCULUS WITH ANALYTIC GEOMETRY II - HONORS	

Science

CHM 1045C	GENERAL CHEMISTRY WITH QUALITATIVE ANALYSIS I ^{++~}	4
or CHM 1045H	GENERAL CHEMISTRY WITH QUALITATIVE ANALYSIS I - HONORS	

PHY 2048C	GENERAL PHYSICS WITH CALCULUS I ^{++~}	4
Social Sciences		
POS 2041	U.S. GOVERNMENT ^{++ (GR)}	3
or AMH 2010	UNITED STATES HISTORY TO 1877	
or AMH 2020	U.S. HISTORY 1877 TO PRESENT	
or AMH 2020H	UNITED STATES HISTORY 1877 TO PRESENT - HONORS	
Electives ¹		
CHM 1025C	INTRODUCTION TO GENERAL CHEMISTRY ^{++~1}	4
COP 2220C	C PROGRAMMING ⁺⁺	3
EGS 1006C	INTRODUCTION TO THE ENGINEERING PROFESSION ⁺	1
EGN 1007C	ENGINEERING CONCEPTS & METHODS ⁺	1
EGN 2312	ENGINEERING ANALYSIS-STATICS ⁺⁺	3
EGN 2322	ENGINEERING ANALYSIS-DYNAMICS ⁺⁺	3
EGS 2373	PRINCIPLES OF ELECTRICAL ENGINEERING ⁺⁺	3
EGN 2440	PROBABILITY AND STATISTICS FOR ENGINEERS ⁺⁺	3
MAT 1033C	INTERMEDIATE ALGEBRA ⁺⁺¹	3
MAC 1105	COLLEGE ALGEBRA ^{++~ (GR)1}	3
or MAC 1105H	COLLEGE ALGEBRA - HONORS	
MAC 1140	PRECALCULUS ALGEBRA ^{++~ (GR)1}	3
or MAC 1140H	PRECALCULUS ALGEBRA-HONORS	
MAC 1114	COLLEGE TRIGONOMETRY ^{++~ (GR)1}	3
or MAC 1114H	COLLEGE TRIGONOMETRY HONORS	
MAC 2313	CALCULUS WITH ANALYTICAL GEOMETRY III ⁺⁺	4
MAP 2302	DIFFERENTIAL EQUATIONS ⁺⁺	3
PHY 2049C	GENERAL PHYSICS WITH CALCULUS II ^{++~}	4
Foreign Language Graduation Requirement ⁺⁺¹		0-8
ASL 2140 & ASL 2150	AMERICAN SIGN LANGUAGE I and AMERICAN SIGN LANGUAGE II ^{++~1}	
FRE 1120 & FRE 1121	ELEMENTARY FRENCH I and ELEMENTARY FRENCH II ^{++~1}	
GER 1120 & GER 1121	ELEMENTARY GERMAN I and ELEMENTARY GERMAN II ^{++~1}	
POR 1120 & POR 1121	ELEMENTARY PORTUGUESE I and ELEMENTARY PORTUGUESE II ^{++~1}	
SPN 1120 & POR 1121	ELEMENTARY SPANISH I and ELEMENTARY PORTUGUESE II ^{++~1}	
Total Credit Hours ²		60-83

• Please speak with your Student Success Coach to build your academic plan.

² Your total credits for the degree may exceed 60 if prerequisite coursework or a college-level foreign language sequence is required.

+ This course must be completed with a grade of C or better.

* This course has a prerequisite, which requires a C or better. Please check the course description in the Valencia catalog.

~ This is a general education course.

(GB) notes Gordon Rule course.

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- Completing math and science prerequisites, or a college-level foreign language sequence, is based on entry testing and placement, as well as high school coursework in algebra, chemistry, and foreign language.
 - You may not be required to complete math and science prerequisite courses if placed into MAC 2311 Calculus with Analytic Geometry and CHM 1405C General Chemistry with Qualitative Analysis I.