Addendum 1 to 2018-2019 Undergraduate Catalog

Engineering Program

The College of STEM offers baccalaureate engineering programs in collaboration with the University of Arkansas, Fayetteville. These programs lead to the bachelor of science in mechanical engineering (BSME) and the bachelor of science in electrical engineering (BSEE). UAFS faculty deliver the freshman and sophomore courses charging UAFS tuition and fees. The junior- and senior-level courses are delivered by University of Arkansas, Fayetteville faculty on the UAFS campus, charging the University of Arkansas, Fayetteville tuition and fees (some classes may be delivered by compressed video). Admission to University of Arkansas, Fayetteville is required prior to enrolling in the junior- and senior-level classes. The baccalaureate degree is granted by University of Arkansas, Fayetteville.

The College of STEM also offers the associate of science in engineering (ASE) with a concentration in electrical or mechanical engineering. The ASE is designed to parallel the first two years of engineering programs at most universities and facilitates students transferring into a bachelor of engineering program with junior standing, with the addition of one or two courses.

Engineering graduates must have a background of sound mathematics, scientific, and economic principles and must be acquainted with industrial principles and practices in their chosen fields before they can assume responsibility in the profession. Many engineering graduates become managers and leaders in the public and private sectors because of the problem-solving skills that were developed as part of an engineering education.

The freshman curriculum stresses a basic foundation in mathematics, physics, and chemistry, which will be required in later years. The sophomore, junior, and senior years emphasize industrial applications of classroom and Lab work. By the selection of electives, a student can concentrate in depth in a particular subject, have the flexibility to study several subjects, and minor in an area of interest. Provision is made for electives in the humanities and social sciences as a means of providing a well-rounded education.

Engineering students follow essentially the same schedule of courses during the freshman year regardless of the intended field of specialization. Certain courses normally taken in the first year comprise the pre-professional curriculum.

UAFS students will declare the ASE upon admission to UAFS. Students will declare the BSEE or BSME only after acceptance into the engineering program at the University of Arkansas, Fayetteville.

The BSEE and BSME degree plans below were not included in the 2018-2019 UAFS undergraduate catatlog.

Electrical Engineering

BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING DEGREE MAJOR CODE: 9072

Student will declare the BSEE only after acceptance in the engineering program at the University of Arkansas, Fayetteville.

FRESHMAN YEAR FALL SEMESTER - 14 HOURS

HOURS				
3	CHEM	1403	College Chemistry	
1	ENGN	1111	Introduction to Engineering I	
4	MATH	2804	Calculus I	
3	English Composition requirement			1
3	History/Government requirement			1

FRESHMAN YEAR SPRING SEMESTER - 15 HOURS

HOURS				NOTES
1	ENGN	1121	Introduction to Engineering II	
4	MATH	2854	Calculus II	
4	PHYS	2903 2911	University Physics I University Physics I Lab	
3	English Composition requirement			1
3	Fine Arts/Humanities requirement			2

SOPHOMORE YEAR FALL SEMESTER - 15 HOURS

HOURS				NOTES
4	ELEG	2103 2101	Electric Circuits I Electric Circuits I Lab	
3	ELEG	2903	Digital Systems I	
4	MATH	2904	Calculus III	
4	PHYS	2923 2931	University Physics II University Physics II Lab	

SOPHOMORE YEAR SPRING SEMESTER - 17 HOURS

HOURS				
4	ELEG	2113 2111	Electric Circuits II Electric Circuits II Lab	
3	ELEG	2913	Digital Systems II	
4	ITC	1374	Programming for Engineers	
3	SPCH	1203	Introduction to Speech Communication	
3	Fine Arts/Humanities requirement			2

Admission to UA Fayetteville (both the institution and the College of Engineering) is required prior to enrolling in the junior and senior level classes.

JUNIOR YEAR FALL SEMESTER - 16 HOURS

HOURS			
4	ELEG	3124	Systems and Signals Analysis with Lab
4	ELEG	3214	Electronics with Lab
4	ELEG	3704	Applied Electromagnetics with Lab
4	ELEG	3924	Microprocessor System Design with Lab

JUNIOR YEAR SPRING SEMESTER - 17 HOURS

HOURS				NOTES
3	ELEG	3143	Probability & Stochastic Processes	
4	ELEG	3224	Electronics II with Lab	
4	ELEG	3304	Energy Systems with Lab	
3	Math/Science/Technical elective			3
3	Social Sciences requirement			2

SENIOR YEAR FALL SEMESTER - 15 HOURS

HOURS				NOTES
3	ECON	2803	Principles of Macroeconomics	
3	ELEG	4063	Electrical Engineering Design I	
3	Electrical Engineering Technical elective			3
3	Electrical Engineering Technical elective			3
3	Engineering Science elective			3

SENIOR YEAR SPRING SEMESTER - 16 HOURS

HOURS				NOTES
1	ELEG	4071	Electrical Engineering Design II	
3	Electrical engineering technical upper-level elective			3
3	Technical upper-level elective			3
3	Technical upper-level elective			3
3	Fine Arts requirement			2
3	Social Sciences requirement			2

125 Total Hours

Notes

1. General Education Core Requirements, see Graduation Requirements in this catalog.
2. Fine Arts, Humanities, Social Sciences. Consult with UA Fayetteville faculty advisor.
3. Upper-level electives. Consult with UA Fayetteville faculty advisor.

Mechanical Engineering

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING DEGREE MAJOR CODE: 9074

Student will declare the BSME only after acceptance in the engineering program at the University of Arkansas, Fayetteville.

FRESHMAN YEAR FALL SEMESTER - 14 HOURS

HOURS				
3	CHEM	1403	College Chemistry I	
1	ENGN	1111	Introduction to Engineering I	
4	MATH	2804	Calculus I	
3	English Composition requirement			1
3	History/Government requirement			1

FRESHMAN YEAR SPRING SEMESTER - 15 HOURS

HOURS				
1	ENGN	1121	Introduction to Engineering II	
4	MATH	2854	Calculus II	
4	PHYS	2903 2911	University Physics I University Physics I Lab	
3	English Composition requirement			1
3	Fine Arts/Humanities requirement			1

SOPHOMORE YEAR FALL SEMESTER - 16 HOURS

HOURS				NOTES
2	CGT	1302	Graphics for Engineers	
3	ENGN	2753	Engineering Statics	
4	MATH	2904	Calculus III	
3	MEEG	2303	Introduction to Materials	
4	PHYS	2923 2931	University Physics II University Physics II Lab	

SOPHOMORE YEAR SPRING SEMESTER - 15 HOURS

HOURS			
3	ENGN	2763	Engineering Dynamics
3	ENGN	2803	Thermodynamics
3	MEEG	2103	Introduction to Machine Analysis
3	SPCH	1203	Introduction to Speech Communication
3	Fine Arts/Humanities requirement		

Admission to UA Fayetteville (both the institution and the College of Engineering) is required prior to enrolling in the junior and senior level classes.

JUNIOR YEAR FALL SEMESTER - 17 HOURS

HOURS			
3	ECON	2803	Principles of Macroeconomics
3	ELEG	3903	Electric Circuits and Machines
3	MEEG	3013	Mechanics of Materials
3	MEEG	3113	Machine Dynamics and Control
2	MEEG	3202	Mechanical Engineering Lab I
3	MEEG	3503	Mechanics of Fluids

JUNIOR YEAR SPRING SEMESTER - 18 HOURS

HOURS				NOTES
3	ELEG	3933	Engineering Electronics	
2	MEEG	3212	Mechanical Engineering Lab II	
4	MEEG	4104	Machine Element Design	
3	MEEG	4413	Heat Transfer	
3	Fine Arts/Humanities/Social Sciences requirement			2
3	Technology or science elective			3

SENIOR YEAR FALL SEMESTER - 14 HOURS

HOURS				NOTES
1	MEEG	4131	Creative Project I	
2	MEEG	4132	Professional Engineering Practice	
2	MEEG	4202	Mechanical Engineering Lab III	
3	MEEG	4483	Thermal Systems Analysis & Design	
3	Mechanical engineering elective			3
3	Fine Arts/Humanities/Social Sciences requirement			2

SENIOR YEAR SPRING SEMESTER - 15 HOURS

HOURS				NOTES
3	MEEG	4133	Creative Project Design II	
6	Technology or science elective			3
3	Fine Arts/Humanities/Social Sciences requirement			2
3	Fine Arts/Humanities/Social Sciences requirement			2

127 Total Hours

Notes

1. General Education Core Requirements, see Graduation Requirements in this catalog.
2. Fine Arts, Humanities, Social Sciences. Consult with UA Fayetteville faculty advisor.
3. Upper-level electives. Consult with UA Fayetteville faculty advisor.