



DUAL-DEGREE ENGINEERING PROGRAM GUIDE

UNIVERSITY OF MONTEVALLO - THE UNIVERSITY OF ALABAMA

Students pursuing the dual-degree engineering program with The University of Alabama will complete 96 semester hours at UM, which include all of UM's general education requirements and all course requirements of the B.S. degree in mathematics. After successful completion of those requirements, the student transfers to The University of Alabama College of Engineering to pursue one of the following degree programs:

Aerospace Engineering
Architectural Engineering
Chemical Engineering
Civil Engineering
Computer Science
Construction Engineering

Electrical Engineering (Computer Engineering Option available)
Environmental Engineering
Mechanical Engineering
Metallurgical Engineering

In order for a student to become a Dual-Degree candidate at UA, he or she must have satisfied the general admission requirements for the College of Engineering at UA. The student is strongly encouraged to contact UA Engineering Student Services (205-348-0750) prior to applying for admission so that an advising plan can be created to assist the student in transferring credits from UM in order to complete degree requirements for the Engineering program.

Upon successful completion of study of a specific engineering curriculum, the student is awarded two degrees: a B.S. in Engineering from UA and a B.S. in Mathematics from UM.

Students interested in a dual-degree program should contact Dr. Kevin Hope, Assistant Professor of Physics, for details.

HELPFUL LINKS AND INFORMATION

Dr. Kevin Hope, Assistant Professor of Physics - hopekm@montevallo.edu or 205 665-6480

UM Registrar's Office - www.legacy.montevallo.edu/registrar or 205 665-6040

UA Engineering Student Services – 205 348-0750

GENERAL EDUCATION / CORE CURRICULUM REQUIREMENTS

All students who participate in the Dual Degree Engineering program must complete the General Education/Core Curriculum requirements for both UM and UA. The courses must be taken at UM and will transfer to UA to fulfill the Core Curriculum requirements for the College of Engineering. **NOTE: Only grades of C or higher will satisfy UA degree requirements.**

UA Core Curriculum Requirement	UM Recommended Course(s)	UA Equivalent
Written Composition (six hours)		
	ENG 101/103 Composition I	EN 101 English Composition
	ENG 102/104 Composition II	EN 102 English Composition II
Humanities, Literature, & Fine Arts (nine hours)		
Literature - Choose at least 1 (Must complete either LIT or HIST sequence)	ENG 231/233 Global Literature	EN 207 World Literature I
	ENG 232/234 Global Literature	EN 208 World Literature II
Humanities	COMS 101 Foundations of Oral Comm	COM 123 Public Speaking
Fine Arts - Choose 1	ART 100 Art Awareness	ARH 151 Intro to Visual Arts
	ART 218 History of Art I	ARH 252 Survey of Art I
	ART 219 History of Art II	ARH 253 Survey of Art III
	MC 325 Survey of American Cinema	TCF 112 Motion Picture Hist/Criticism
	MUS 121/122 Invitation to Listening	MUS 121 Intro to Listening
	THEA 120/122 Introduction to Theatre	TH 114 Introduction to Theatre
History, Social & Behavioral Sciences (nine hours)		
History - Choose at least 1 (Must complete either LIT or HIST sequence)	HIST 101/103 History of World Civ I	HY 101 Western Civ to 1648
	HIST 102/104 History of World Civ II	HY 102 Western Civ Since 1648
Social & Behavioral Sciences - Choose at least 1 (If completing the sequence in Literature, Then 2 classes from this group should be taken)	EC 231 Intro to Microeconomics	EC 111 Principles of Macroeconomics
	EC 232 Intro to Microeconomics	EC 110 Principles of Microeconomics
	FCS 291 Individual and Family Dev	HD 101 Human Development
	GEOG 231 World Regional Geography	GY 105 World Regional Geography
	POS 200 American National Government	PSC 101 Intro American Politics
	PSYC 201 Foundations in Psychology	PY 101 Intro to Psychology
	SOC 101 Introductory Sociology	SOC 101 Intro to Sociology
Natural Sciences & Mathematics (12 hours)		
Mathematics	MATH 170 Calculus I	MATH 125 Calculus I
Natural Sciences*	PHYS 241 University Physics I	PH 105 Gen Physics W/Calculus I
	PHYS 242 University Physics II	PH 106 Gen Physics W/Calculus II

***UM students must take an additional science class in a discipline other than Physics in order to fulfill the General Education requirements for the B.S. degree in Mathematics. Refer to the *Mathematics and Science Courses* table below for more information.**

ADDITIONAL UA CORE CURRICULUM REQUIREMENTS

A six-hour discipline depth-study may be taken in Literature or History. UM requires a students to take either one six-hour sequence in Literature or History as noted above.

Students must complete six hours of foreign language or computer classes in addition to these requirements. The computer classes are automatically built in to each Engineering program, therefore UM students should not have to take additional classes to meet this requirement

Six semester hours in 300- and 400-level courses approved for the writing designation. These courses must be completed at UA. Contact UA Engineering Student Services for more information.

Refer to www.registrar.ua.edu for UA course equivalencies.

MATHEMATICS AND SCIENCE COURSES

The chart below lists courses in Mathematics, Chemistry, and Physics that may be taken at UM to transfer to UA to meet additional Engineering degree requirements. Students are strongly encouraged to contact UA Engineering Student Services for questions concerning the requirements needed for the desired program. **NOTE: Only grades of C or higher will satisfy UA degree requirements.**

UM Course(s)	UA Equivalent	Required by
Mathematics		
MATH 170 Calculus I	MATH 125 Calculus I	All Engineering programs
MATH 171 Calculus II	MATH 126 Calculus II	All Engineering programs
MATH 247 Intro to Discrete Mathematics	MATH 301 Discrete Mathematics	Computer Science
MATH 272 Calculus III	MATH 227 Calculus III	Aerospace, Chemical, Civil, Construction, Electrical, Mechanical, Metallurgical
MATH 350 Differential Equations (Option 2)	MATH 238 Applied Differential Equations I	Aerospace, Chemical, Civil, Construction, Electrical, Mechanical, Metallurgical
MATH 390 Linear Algebra	MATH 237 Applied Matrix Theory	Aerospace, Electrical
Chemistry		
CHEM 121 General Chemistry I	CH 101 General Chemistry I	Aerospace, Chemical, Civil, Construction, Electrical, Mechanical, Metallurgical
CHEM 122 General Chemistry II	CH 102 General Chemistry II	Chemical, Metallurgical
CHEM 221 Organic Chemistry I	CH 231 Elem Organic Chem I	Chemical
CHEM 222 Organic Chemistry II	CH 232 Elem Organic Chem II	Chemical
Physics		
PHYS 241 University Physics I	PH 105 Gen Physics W/Calculus I	Aerospace, Chemical, Civil, Construction, Electrical, Mechanical, Metallurgical
PHYS 242 University Physics II	PH 106 Gen Physics W/Calculus II	Aerospace, Chemical, Civil, Construction, Electrical, Mechanical, Metallurgical
PHYS 350 Modern Physics	PH 253 Intro Modern Physics	Electrical