



DUAL-DEGREE ENGINEERING PROGRAM GUIDE

UNIVERSITY OF MONTEVALLO

UNIVERSITY OF ALABAMA IN HUNTSVILLE

Students pursuing the Dual-Degree Engineering Program with the University of Alabama in Huntsville (UAH) will complete approximately three academic years at the University of Montevallo (UM) and a minimum of 75% of the total hours required by UM for the awarding of the bachelor's degree, which includes all of UM's general education requirements and all mathematics and physics course requirements of the B.S. degree in mathematics. The Dual-Degree student may be jointly enrolled at both institutions. After successful completion of those requirements, the student transfers to UAH for approximately two academic years to pursue one of the following degree programs:

Aerospace Engineering (BSAE)

Chemical Engineering (BSChE)

Civil and Environmental Engineering (BSCE)

Computer Engineering (BSCpE)

Electrical Engineering (BSEE)

Industrial and System Engineering (BSISE)

Mechanical Engineering (BSME)

Optical Engineering (BSOpE)

Any Other Undergraduate engineering discipline to be offered in the future by UAH

In order for a student to become a Dual-Degree candidate at UAH, he or she must have a recommendation from the designated official at UM and satisfied the admission requirements of UAH for transfer students as specified in the UAH catalog in effect at the time of matriculation in UAH. Admission to the College of Engineering at UAH is guaranteed to UM students who satisfy the requirements stated. Students must complete at least 25% of the coursework for the BS in engineering at UAH. Students completing the Dual-Degree program will take a combination of general education/core curriculum courses and math/science courses at UM. They will then complete courses for their majors at UM and UAH.

UM students interested in the Dual-Degree program should contact Dr. Kevin Hope, Assistant Professor of Physics, for details.

After completing all academic requirements of the two cooperating institutions, the Dual-Degree student will be concurrently awarded a Bachelor of Science degree in Mathematics from UM and a Bachelor of Science degree in one of the several designated bachelor degrees awarded by UAH.

HELPFUL LINKS AND INFORMATION

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

<http://www.montevallo.edu/arts-sciences/college-of-arts-sciences/departments/biology-chemistry-mathematics/engineering-programs/>

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

UAH Center for Undergraduate Engineering Education – engineering@uah.edu or 256 824-6877

UM transfer course equivalencies: <http://www.montevallo.edu/about-um/administration/registrar/transfer-equivalencies/>

UAH transfer course equivalencies: https://sierra.uah.edu:9021/PROD/wxfer_artic.main

GENERAL EDUCATION / CORE CURRICULUM REQUIREMENTS

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

UAH CORE REQUIREMENT	UM RECOMMENDED COURSE	UAH EQUIVALENT
Written Composition (6 hours)		
	ENG 101/103 Composition I	EH 101 Freshman Composition
	ENG 102/104 Composition II	EH 102 Freshman Composition
Humanities, Literature, & Fine Arts (9 hours)		
Literature - Choose at least one (Must complete either the LIT or HIST sequence)	ENG 231/233 Global Literature	EH 207 Readings Literature/Culture 1
	ENG 232/234 Global Literature	EH 208 Readings Literature/Culture 2
Humanities – Choose one	FRN/GER/SPN 101, 102, 201, 202	FL 101, 102, 201, 202
	PHIL 110/111 Intro to Philosophy	PHL 101 Introduction to Philosophy
	PHIL 220 Ethics	PHL 102 Intro to Ethics
	PHIL 230 Science, Tech, and Value	PHL 150 Tech, Science, and Human Values
Fine Arts - Choose one	ART 218 History of Art I	ARH 100 Survey: Ancient-Medieval
	ART 219 History of Art II	ARH 101 Survey: Renaissance-Modern
	MUS 121/122 Invitation to Listening	MUS 100 Intro to Music Literature
	THEA 120/122 Intro to Theatre	CM 122 Theatre Appreciation
History, Social & Behavioral Sciences (9 hours)		
History - Choose at least one (Must complete either the LIT or HIST sequence)	HIST 101/103 History of World Civ I	HY 103 World History to 1500
	HIST 102/104 History of World Civ II	HY 104 World History Since 1500
Social & Behavioral Sciences Choose at least one	EC 231 Intro to Microeconomics	ECN 142 Princ of Macroeconomics
	EC 232 Intro to Microeconomics	ECN 143 Princ of Microeconomics
If completing the sequence in Literature, two classes from this group should be taken)	GEOG 231 World Regional Geography	GY 105 World Regional Geography
	POS 200 American National Gov't	PSC 101 American Government
	PSYC 201 Foundations in Psychology	PY 101 General Psychology I
	SOC 101 Introductory Sociology	SOC 100 Intro to Sociology
Natural Sciences & Mathematics (12 hours)		
Mathematics	MATH 170 Calculus I	MA 171 Calculus A
Natural Sciences*	CHEM 121 General Chemistry I	CH 121/125 General Chemistry I / Lab
	PHYS 241 University Physics I	PHYS 111/114 Gen Physics w/Calculus I* / Lab

*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 CURRICULUM REQUIREMENTS

The various engineering curricula at UAH are arranged so that a student will take approximately 18 semester hours of humanities/social sciences in addition to appropriate courses in English composition. Some of these humanities/social sciences courses are prescribed while others can be selected by the student from an approved list (which is available from the DDC at UAH). If the official study program at UAH for the Dual-Degree candidate includes a free elective and the candidate has excessive hours of credit at UM, these excess hours will be used as free elective transfer credit at UAH.

MATHEMATICS AND SCIENCE COURSES

The chart below lists courses in Mathematics, Biology, Chemistry, and Physics that may be taken at UM to transfer to UAH to meet additional Engineering degree requirements. Dual-Degree students are strongly encouraged to contact UAH College of Engineering for questions concerning the requirements needed for the desired program. The courses listed below are by no means exhaustive. **NOTE: Students must earn a C in any transferred course that serves as a prerequisite a required engineering course.**

UM COURSE(S)	UAH EQUIVALENT	REQUIRED BY
Mathematics		
MATH 170 Calculus I	MA 171 Calculus A	All Engineering programs
MATH 171 Calculus II	MA 172 Calculus B	All Engineering programs
MATH 247 Intro to Discrete Mathematics	MATH 301 Discrete Mathematics	Computer Science
MATH 261 Intro to Prog/Comp Algebra Sys	CS 100 Intro to Computers and Program	
MATH 272 Calculus III	MA 272 Calculus C	All Engineering programs
MATH 350 Differential Equations (Option 2)	MA 238 Applied Differential Equations	All Engineering programs
MATH 390 Linear Algebra	MA 244 Intro to Linear Algebra	Aerospace, Civil & Environmental, Computer, Electrical, Industrial & Systems, Mechanical, Optical
Biology		
BIO 105 Intro Biology I	BYS 119 Principles of Biology	Aerospace, Civil & Environmental, Industrial & Systems, Mechanical
Chemistry		
CHEM 121 General Chemistry I	CH 121/125 General Chemistry I / Lab	Aerospace, Chemical, Civil, Construction, Electrical, Mechanical
CHEM 122 General Chemistry II	CH 123/126 General Chemistry II / Lab	Chemical
CHEM 221 Organic Chemistry I	CH 331/335 Organic Chemistry I / Lab	Chemical
CHEM 222 Organic Chemistry II	CH 332/336 Organic Chemistry II / Lab	Chemical
Physics		
PHYS 241 University Physics I	PH 111/114 General Physics w/Calculus I / Lab	All Engineering programs
PHYS 242 University Physics II	PH 112/115 General Physics w/Calculus II / Lab	Aerospace, Chemical, Civil, Construction, Electrical, Mechanical

Additional courses in computer programming, engineering graphics, and other engineering fields may be required. Refer to UAH for course equivalencies.