

5 YEAR PROGRAM OF STUDY FOR OSU STUDENTS TO Uds EU-US ATLANTIS PROGRAM

FRESHMAN YEAR- 1st year, pre-ME	F	W	S
MIME101. Introduction to MIME	3		
ENGR112. Introduction to Engineering Computing			3
CH201, 202&205. Chemistry for Engineers	3	3	1
MTH251, 252, 254. Differential Calc, Integral Calc, Vector Calc	4	4	4
PH211. General Physics with Calculus			4
COMM111, HHS231&241, WR121. Communications, Health, Writing	3	3	3
ENGR248. Engineering Graphics and 3-D Modeling		3	
GERMAN. ME299 (Technical German Vocabulary, Beg, Int, Adv)	1	1	1
TOTAL	14	14	16

SOPHOMORE YEAR- 2nd year, pre-ME	F	W	S
MTH306, 256. Matrix and Power Series, Applied Differential Equations	4	4	
PH212, 213. General Physics with Calculus	4	4	
ENGR211. Statics	3		
ENGR212. Dynamics		3	
ENGR213. Strength of Materials			3
ENGR201. Electrical Fundamentals 1		3	
ENGR202. Electrical Fundamentals 2			3
ST314. Statistics			3
ECON201 or 202. Economics	4		
ENGR391. Engineering Economics and Project Management			3
WR327. Technical Writing			3
GERMAN. ME299 (Technical German Vocabulary, Beg, Int, Adv)	1	1	1
TOTAL	16	15	16

Apply for ME Pro-School Spring of or Summer after Sophomore Year

JUNIOR YEAR- 3rd year, professional school	F	W	S
ME250. Intro to Manufacturing Processes	1		
ME311. Intro to Thermal-Fluid Sciences	4		
ME316. Mechanics of Materials		3	
ME382. Introduction to Design		4	
ME373. Mechanical Engineering Methods		3	
ME317. Intermediate Dynamics	4		
ME312. Thermodynamics			4
ME331. Introductory Fluid Mechanics			4
ME383. Mechanical Component Design			4
MATS321. Introduction to Materials Science (required in Fall before Germany)	4		
MATS322. Mechanical Behavior of Materials (required in Winter before Germany)		3	
Bac Core Perspectives (L&A or DPD)			3
GERMAN. ME299 (Technical German Vocabulary, Beg, Int, Adv)	1	1	1
TOTAL	14	15	16

FIRST SENIOR YEAR- Uds- 4th year	Pre-F	F	S
Intensive German Language Courses	4 ECTS		
Praktikum 1, Tiel 2 (1/2 of Senior Lab Restricted Elective)		3 ECTS	
Praktikum 2, Tiel 1 (1/2 of Senior Lab Restricted Elective)			3 ECTS
German		2.5 ECTS	2.5 ECTS
Materials Science Required Courses (NOTE: As a whole, satisfies all restricted Analysis electives for Mechanical Engineering)			
Konstitutionslehre (Thermodynamics of Solids and Solidification)		3 ECTS	
Polymere – Werkstoffliche Grundlagen (Polymer Science)		3 ECTS	
Keramik I – Grundlagen (Ceramic Fundamentals)		2.5 ECTS	
Festkörper- und Werkstoffphysik für Ingenieur (Solid State Physics) (can also take in OSU as ME575)		6 ECTS	
Stahlkunde I (Steel Science)			3 ECTS
Glas I – Grundlagen (Amorphous Solids/Ceramics)			2.5 ECTS
Kunststoff und Elastomertechnik (Polymer Manufacturing and Tech)			3 ECTS
Required credit sub-total	4 ECTS	20 ECTS	14 ECTS
Choose electives from the following to make up 30 ECTS each semester:			
Fertigungstechnik (Manufacturing Processing)		5 ECTS	
Grenzflächen und Mikrostrukturphysik (Physics of Microstructures)			5 ECTS
Einführung in die Zerstörungsfreien Prüfverfahren (NDT Techniques)			2.5 ECTS
Einführung in die Funktionswerkstoffe (Functional Materials Fundamentals)			2.5 ECTS
TOTAL	4 ECTS	~25 ECTS	~25 ECTS

SECOND SENIOR YEAR- 5th year	F	W	S
ME430. Dynamics and Controls	4		
ME497, 498. Senior Design Project	4	4	
Senior Thesis in German Materials Science			**
ME332. Heat Transfer	4		
ME451. Mechanical Laboratory		4	
ME571. Electronic Properties (Festkörper- und Werkstoffphysik für Ingenieur) if not taken in Germany (every other year) or PH575 in spring (3cr)		4	
BIO. Biology			4
(Synthesis and Perspectives Courses may be taken S/U grading)			
Synthesis		3/4	3/4
Perspectives			
Western Culture (Satisfied by German Culture Classes)			
Cultural Diversity (Satisfied by Study Abroad)			
Difference, Power, and Discrimination or Literature and the Arts			3/4
TOTAL	12	15-16	10-12

** OSU Senior Project Report (or OSU Honors College Thesis) submitted to Uds as Senior Thesis