



**WAYNE STATE UNIVERSITY**  
**COLLEGE OF ENGINEERING**  
 Course Equivalencies for Henry Ford College  
 (313) 577-3780

**Bachelors of Science degree requirements for the following Majors:**

- Chemical Engineering (CHE)
- Civil Engineering (CE)
- Electrical and Computer Engineering (ECE)
- Industrial and Manufacturing Engineering (IE)
- Mechanical Engineering (ME)

Wayne State University			HFCC		Degree Requirements				
Title	WSU Course	Cr.	Course	Cr.	CHE	CE	ECE	IE	ME
Calculus I (MC)	MAT 2010	4	MATH 180	5	X	X	X	X	X
Calculus II	MAT 2020	4	MATH 183	5	X	X	X	X	X
Calculus III	MAT 2030	4	MATH 280	5	X	X	X	X	X
Linear Algebra and Differential Equations	MAT 2150 (or 2250+2350)	4 (6)	MATH 283+289	7	X	X	X	X	X
General Physics I (PS)	PHY 2175	4	PHYS 231	4	X	X		X	X
General Physics II	PHY 2185	4	PHYS 232	4	X	X	X	X	X
General Physics I + Lab (PS)	PHY 2175/2171	5	PHYS 231	5			X		
Principles of Chemistry I (PS)	CHM 1225/1230	4	CHEM 141	5	X	X	X	X	X
Organic Chemistry I	CHM 1240/1250	5	CHEM 241+243	6	X				
Organic Chemistry II	CHM 2225	3	No equivalent		X				
Basic Biology I (LS)	BIO 1510	3	BIO 152	4	X	X	X	X	X
Microeconomics (SS) or Macroeconomics (SS)	ECO 2010 or ECO 2020	3	BEC 152 or BEC 151	3	X	X	X	X*	X
Intro. College Writing (BC)	ENG 1020	3	ENG 131	3	X	X	X	X	X
Technical Communication I	ENG 3050	3	ENG 135	3	X	X	X	X	X
Basic Engineering I	B E 1200	3	ENGR 130	3	X	X	X	X	X
Science of Materials	B E 1300	3	ENGR 201	3	X			X	X
Statics	C E/M E 2410	3	ENGR 232	3		X			X
Dynamics	M E 3400	3	ENGR 233	3					X

Applicants to the College of Engineering who have completed college-level studies at a community college or 4-year university are evaluated based on G.P.A. and the level of curriculum completion at the previous institution(s). Students may be admitted to the Professional Engineering program, the Pre-professional Program, or the Engineering Bridge program, depending on their educational background and placement examination results.

*\*The Social Science requirement for Industrial Engineering can be fulfilled by any course*

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**General Education Requirements**

Unless otherwise indicated with a plus (“+”) sign, please select one course from those listed to fulfill each Wayne State University General Education Requirement. Please be advised that no more than 64 credits from a two-year degree-granting institution will apply toward the completing of Wayne State University degree requirements, though all credits that transfer will be listed on the Wayne State University student record.

Wayne State University Requirement	HFCC Courses
AI - American Society and Institutions*	POLS 131(3)
BC - Basic Composition	Fulfilled by degree requirements in previous table
CT - Critical Thinking*	PHIL 131(3) or WSU competency exam
FC - Foreign Culture*	ANTH 152(3) ARA 231(4) FRE 231(4) GER 231(4) SPN 231(4)
HS - Historical Studies*	HIST 111(3), 112(3), 113(3)
IC - Intermediate Composition	ENG 3050 at WSU recommended
LS - Life Science	Fulfilled by degree requirements in previous table
MC - Mathematics Competency	Fulfilled by degree requirements in previous table
OC - Oral Competency	ENG 3060 at WSU required
PL - Philosophy and Letters	PHI 1120 at WSU required
PS - Physical Science	Fulfilled by degree requirements in previous table
SS - Social Science	Fulfilled by degree requirements in previous table
VP - Visual and Performing Arts*	ART 121(3), 122(3), 123(3), 135(3) HUM 101(3) MUS 130(3), 133(3), 232(3) THEA 131(3) TCM 132(3)
WI - Writing Intensive	Must be fulfilled at WSU

**Note:** Students are strongly advised to take one mathematics course each semester until the entire required math sequence is complete.

**\*Waived for students with MACRAO stamped transcript or endorsed as “MTA satisfied.” To read more about the MACRAO General Education Transfer Agreement or the MTA, please visit the links below or speak with a community college counselor.**

[MACRAO General Education Transfer Agreement](#)  
[Michigan Transfer Agreement \(MTA\)](#)