

3-2 Engineering Program Courses for Core Curriculum

The Pennsylvania State University

3-2 Institution: **Waynesburg College**

Course	Credits	Course Title	3-2 Course	Credits	Grade
CHEM 110	3	Chemical Principles	CHE 121	4	_____
¹ CHEM 111	1	Experimental Chemistry I	Part of CHE 121	-----	_____
² CMPSC 201	3	Computer Programming for Engineers	CSC 117 (C++)	3	_____
³ E MCH 211	3	Statics	No Equivalent	-----	_____
⁴ EDSGN 100	3	Introduction to Engineering Design and Graphics	No Equivalent	-----	_____
ENGL 015	3	Rhetoric and Composition	ENG 102 or 187	3	_____
ENGL 202C	3	Effective Writing: Technical Writing	ENG 329	3	_____
Health	3	Health Education and Exercise and Sport Activities	LSK and sports	3	_____
MATH 140	4	Calculus and Analytic Geometry I	MAT 211	4	_____
MATH 141	4	Calculus and Analytic Geometry II	MAT 212	4	_____
⁵ MATH 220	2	Matrices	MAT 306	3	_____
⁶ MATH 230	4	Calculus and Vector Analysis	MAT 213	3	_____
MATH 251	4	Ordinary and Partial Differential Equations	MAT 406	3	_____
PHYS 211	4	General Physics (Mechanics)	PHY 211	5	_____
PHYS 212	4	General Physics (Electricity and Magnetism)	PHY 212	5	_____
CAS 100	3	Effective Speech	COM 228	3	_____
Arts Elective	3	Architecture, Art History, Integrative Arts,	_____	3	_____
Arts Elective	3	Landscape Architecture, Music, Theatre Arts	_____	3	_____
⁷ Humanities Elective	3	American Studies, Classics, History, Humanities,	_____	3	_____
Humanities Elective	3	Multi-Ethnic Studies, Philosophy, Religious Studies	_____	3	_____
ECON 002 or ECON 004	3	Intro to Microecon. or Macroecon. Analysis and Policy	ECO 201 or 202	3	_____
Social & Behavioral Science Elective	3	Anthropology, Human Development, Political Science, Psychology, Sociology	_____	3	_____

¹Except AERSP, M E

²Except A B E, CH E, CMPEN

³Except CH E, CMPEN, MATSE (PLMSE)

⁴Except CMPEN, ENVSE, MATSE, PNG E

⁵Except A B E, CH E, PNG E
elective

⁶Except C E, ENVSE, MNG E

⁷PNGE and MNG E require an ethics

Name: _____
 Student No.: _____

Additional 3-2 Program Courses for Specific Engineering Majors*

The Pennsylvania State University

3-2 Institution: **Waynesburg College**

Major	Course	Credits	Course Title	3-2 Course	Credits	Grade
BIO E, CH E, E SC, M E, ALL EMS except MNG E	CHEM 112	3	Chemical Principles	CHE 122	5	_____
BIO E, CH E, E SC, MATSE	CHEM 113	1	Experimental Chemistry	Part of CHE 122	-----	_____
BIO E, CH E, MATSE(PLMSE)	CHEM 210	3	Organic Chemistry	CHE 201	5	_____
COMPEN	COMPEN 121, 122	3, 3	Intermediate Programming	CSC 207	3	_____
ALL except CH E, COMPEN, E E, and MATSE(PLMSE)	E MCH 212	3	Dynamics	No Equivalent	-----	_____
ALL except CH E, COMPEN, E E, ENVSE, and MATSE(PLMSE)	E MCH 213	3	Strength of Materials	No Equivalent	-----	_____
C E, PNG E	GEOSC 001	3	Physical Geology	GLG 101	4	_____
ENVSE, MNG E	GEOSC 071	3	Physical Geology for Engineers	No Equivalent	-----	_____
ALL except CH E, COMPEN, E E, E SC, and MNG E	M E 201, 300	3	Introduction to Thermal Science/ Engineering Thermodynamics I	No Equivalent	-----	_____
C E, COMPEN, E E, M E	STAT 401, 418	3	Experimental Methods/Probability	MAT 315	3	_____
BIO E, CH E, MATSE(PLMSE)	CHEM 213, 212	2, 3	Organic Chemistry and Lab	CHE 202	5	_____
BIO E, COMPEN, E E, I E	COMPEN 271, 275	3, 1	Introduction to Digital Systems & Lab	No Equivalent	-----	_____
BIO E, COMPEN, E E, E SC	E E 210	4	Circuits and Devices	No Equivalent	-----	_____
AERSP, E E, E SC, PNG E, MNG E	PHYS 213	2	Fluids & Thermodynamics	No Equivalent	-----	_____
ALL except A B E, C E, I E, ENVSE, PNG E, and MNG E	PHYS 214	2	Waves & Quantum Physics	No Equivalent	-----	_____

* College of Engineering (ENGR) Majors:

AERSP Aerospace Engineering
 A B E Agricultural and Biological Engineering
 BIO E Bioengineering
 CH E Chemical Engineering
 CE Civil Engineering
 COMPEN Computer Engineering
 E E Electrical Engineering
 E SC Engineering Science
 I E Industrial Engineering
 M E Mechanical Engineering

College of Earth and Mineral Sciences (EMS) Majors:

ENVSE Environmental Systems Engineering
 MATSE Material Science and Engineering
 (PLMSE) Polymer Science and Engineering Option of
 MATSE
 MNG E Mining Engineering
 PNGE Petroleum and Natural Gas Engineering

