

100-200 Level Engineering Science Course Crosswalk

Revised August 18, 2005

Purposes of this crosswalk are to 1) ascertain commonality already in place, 2) provide some information about where some future group work might be needed, and 3) check for accuracy. *This data was taken directly from college catalogs, web sites, and course equivalency tables. It includes courses that were shared by three or more institutions and as a result, not all engineering courses are represented in this table because they were unique to the major or the institution. It is recognized that there is some variance in course content and target population. Additional coursework may be required by the receiving institution to satisfy their course equivalency. Not all courses are available at each college, especially in rural parts of Oregon. This does not mean that students do not have access to advising and general education pre-major courses. In many cases, colleges offer pre-engineering general education courses as part of an Associate of Arts Oregon Transfer degree.*

Topic: Statics

Number	Title	Requisites	Notes	Credits	Institution
EAS 211	Statics	Pre: MTH 252, Ph 211 taken concurrently		4	PSU
ENGR 211	Statics	Pre: Soph. Standing, Mth 254, co-req 254		3	OSU
ENGR 211	Statics	Pre: MTH 252		4	OIT
ENGR 211	Statics	Pre: Working knowledge of spreadsheets; Coreq: MTH 252, PH211 or PH 201		4	LBCC
ENGR 211	Statics	Pre: MTH 253, PHY 211, GE 101		4	PCC
ENGR 211	Statics	Pre: MTH 252 or consent of instructor	Suitable for all majors	4	Chemeketa
ENGR 211	Statics	Pre: MTH 252 with C or better		4	MHCC
ENGR 211	Statics	Pre: MTH 252 and PH211		4	Lane
ENGR 211	Statics	Pre: MTH 251 and PH 201/211		4	COCC
GE 211	Statics	Pre: Placement in RD 115 and WR121, MTH 253, Coreq: PH211		4	Clackamas
ENGR 211	Statics	Pre: PH211; MTH 252 may be taken concurrently		4	Rogue
ENGR 211	Statics	Pre: PH 213 with a "C" or better		3	SOCC
ENGR 211	Statics	Pre: MTH 251		4	Umpqua

Topic: Dynamics

Number	Title	Requisites	Notes	Credits	Institution
EAS 215	Dynamics	Pre: EAS 211, MTH 253		4	PSU
ENGR 212	Dynamics	Pre: ENGR 211 MTH 252		3	OIT
ENGR 212	Dynamics	Pre: ENGR 211, PH 211, soph standing		3	OSU
EGR 212	Eng Mechanics-Dynamics	Pre: MTH 202, EGR 211		3	UP
EGR 213	Intro to Dynamics	Pre: EGR 211		1	UP
GE 212	Dynamics	Pre: GE 211		4	PCC
ENGR 212	Dynamics	Pre: ENGR 211, MTH 252, PH211 or PH 201, working knowledge of spreadsheets		4	LBCC
EGR 212	Dynamics	Pre: EGR 211, MTH 252 & PH 211, consent of instructor	Mech. eng.	4	Chemeketa
ENGR 212	Dynamics	Pre: ENGR 211, MTH 252 and PH 211		4	MHCC
ENGR 212	Dynamics	Pre: ENGR 211, MTH 254, PH211		4	Lane
ENGR 212	Dynamics	Pre: ENGR 211 and MTH 252		4	COCC
GE 212	Dynamics	Pre: Placement in RD 115 and WR121, GE 211 and PH211		4	Clackamas
ENGR	Dynamics	Pre: ENGR 211 and MTH 252		3	Rogue
ENGR 212	Dynamics	Pre: ENGR 211 with a "C" or better		3	SOCC
ENGR 211	Dynamics	Pre: ENGR 211, MTH 251		3	Umpqua

Topic: Strength and Materials

Number	Title	Requisites	Notes	Credits	Institution
EAS 212	Strength of Materials	Pre: EAS 211, MTH 253		4	PSU
EAS 213	Properties of Materials	Pre: CH 221 Lecture and Lab		4	PSU
ENGR 213	Strength of Materials	Pre: ENGR 211		3	OIT
ENGR 213	Strength of Materials	Pre: ENGR 211		3	OSU
ENGT 231	Strength of Materials	Pre: ENGT 230 or ENGR 211		3	OIT
ENGT 232	Adv Strength of Materials	Pre: ENGT 231		3	OIT
ENGR 213	Strength of Material	Pre: MTH 252, ENGR 211		4	COCC
ENGR 213	Strength of Materials	Pre: ENGR 211 and MTH 253		4	Lane
ENGR 213	Strength of Materials	Pre: None		4	MHCC
ENGR 213	Strength of Materials	Pre: ENGR 211, MTH 252, working knowledge of spreadsheets		4	LBCC
EGR 213	Strength of Materials	Pre: EGR211 and MTH 252 or consent of instructor	Mech. Eng.	4	Chemeketa
GE 213	Strength of Materials	Pre: Placement in RD 115 and WR121, GE 211		4	Clackamas
ENGR 213	Strength of Materials	Pre: GE 211		4	PCC
ENGR 213	Strength of Materials	Pre: ENGR 211 and MTH 252		4	Rogue
ENGR 213	Strength of Materials	Pre: ENGR 211 with a "C" or better		3	SOCC
ENGR 213	Strength of Materials	Pre: ENGR 211		4	Umpqua

Topic: Electrical Fundamentals

Number	Title	Requisites	Notes	Credits	Institution
ENGR 201	Electrical Fundamentals	Pre: Sophomore Standing		3	OSU
ENGR 201	Electrical Fundamentals	Pre: Mth 251, 252, PH212		3	Umpqua
ENGR 201	Electrical Fundamentals I	Pre: PH 213 with a C or better		3	SOCC
ENGR 221	Electrical Circuits I	Recom. MTH 253, PHY 213, Prereq: GE 101, MTH 252, PHY 213		5	PCC
EGR 201	Electrical Fundamentals I	Pre: MTH 252 or consent of instructor	Mech. Eng.	4	Chemeketa
ENGR 221	Electrical Fundamentals I	Pre: Grade of "C-" or better in PH212		4	Lane
ENGR 201	Electrical Fundamentals I	Pre: MTH 252 with a grade of "C" or better.		5	MHCC
ENGR 201	Electrical Fundamentals	Pre: MTH 252, PH202/212 or concurrent registration		3	COCC
ENGR 201	Electrical Fundamentals: DC Circuits	Pre: MTH 251 Differential calculus		4	LBCC
ENGR 236	Fundamentals of Electric Circuits	MATH 251, PHY202/222		3	OIT
ECE 221	Electric Circuits	Mth 253		4	PSU

Level II:

ENGR 202	Electrical Fundamentals II	Pre: ENGR 201, Lec/Lab, Honors College approval required		3	OSU
ENGR 202	Electrical Fundamentals II	Pre: ENGR 201 with a "C" or better		3	SOCC
ENGR 202	Electrical Fundamentals II	Pre: ENGR 201		3	Umpqua
EGR 202	Electrical Fundamentals II	Pre: MTH 252 and EGR 201 or consent of instructor	Mech Eng.	4	Chemeketa
ENGR 202	Electrical Fundamentals II	Pre: MTH 252 and ENGR 201		4	MHCC
ENGR 202	Electrical Fundamentals: AC Circuits	Pre: MTH 252 Integral Calculus; ENGR 201 Electrical Fundamentals		4	LBCC

Level III:

ENGR 203	Electrical Fundamentals III	Pre: ENGR 202 and soph standing in eng. And MTH 256 recommended.		3	OSU
EGR 203	Electric Control Fundamentals	Pre: MTH 252, MTH 256 and EGR 201 or consent of instructor	Mech. Eng.	4	Chemeketa
ENGR 203	Electrical Fundamentals: Signals and Controls	Pre: MTH 253 Calculus; ENGR 202 Electrical Fundamentals		4	LBCC
ENGR 222	Electrical Circuits II	Pre: GE 221, MTH 252		5	PCC
ENGR 203	Electrical Fundamentals III	Pre: ENGR 202 with a "C" or better		3	SOCC

Topic: Orientation

Number	Title	Requisites	Notes	Credits	Institution
ENGR 101	Engineering Fundamentals	Pre: WR115		4	PCC
GE 101	Engineering Orientation	Pre: ?		3	COCC
GE 101	Engineering Orientation	Pre: MTH 111 or consent of instructor	For all majors	3	Chemeketa
EGR 101	Engineering Orientation	Pre: MTH 111 or high school Trig		3	Clatsop
ENGR 101	Engineering Orientation	Pre: MTH 251		3	Lane
ENGR 111	Engineering Orientation I	Pre: MTH 095		3	Umpqua
ENGR 111	Engineering Orientation I	Pre: None		3	OSU
GE 101	Engineering Orientation	Pre: MTH 111 with a C or better.		4	MHCC
ENGR 111	Engineering Orientation	Pre: MTH 111		3	SOCC
ENGR 111	Engineering Orientation I	Pre: MTH III College Algebra		4	LBCC
GE 101A	Engineering Prob Solving	Pre: None; Co-req: MTH 251		2	Clackamas
GE 101B	Engineering Programming	Pre: Pass CS120 or equiv experience		2	Clackamas
LEVEL II:					
ENGR 112	Engineering Orientation II	Pre: None		3	OSU
ENGR 112	Engineering Orientation II	Pre: MTH 095		3	Umpqua
GE 102	Engineering Computations	Pre: MTH 111 or consent of instructor	For all majors	3	Chemeketa
GE 103	Engineering Computations	Pre: GE 102, CS 101 or consent of instructor	For all majors	3	Chemeketa
GE 102	Engineering Computations	Pre: MTH 111 with a C or better.		3	MHCC
ENGR 112	Engineering Orientation II	Pre: MTH 111 College Algebra		4	LBCC
GE 102	Engineering Problem Solving and Technology	Pre: MTH 112		3	COCC
EAS 101	Engineering Prob Solving	Pre: None		4	PSU
GE 102	Engineering Computations	Pre: Placement in RD-115 and WR121 Co-requisite GE101A		4	Clackamas
ENGR 112	Engineering Computation	Pre: MTH 111 with a "C" or better.		3	SOCC
	Rigorous programming course		Accepted by OSU		PCC, Lane

Topic: Engineering Graphics

Crs Number	Title	Requisites	Notes	Credits	Institution
ENGR 102	Engineering Graphics	Pre: GE 101		3	PCC
GE 115	Engineering Graphics	Pre: DRF 130		3	Chemeketa
GE 115	Engineering Graphics	Pre: MTH 111 with a C or better. Recommend a Mechanical Engineering drawing course, Intro to AutoCAD or consent of the instructor		3	MHCC
EGR 248	Graphics and 3D Modeling	Pre: DRF 130 or consent of instructor		3	Chemeketa
GE 115	Engineering Graphics	Pre: Placement in RD115 and WR121. Prequ. GE101A		4	Clackamas
ENGR 245	Engineering Graphics and Design	Pre: MTH 111 with a "C" or better		3	SOCC
ENGR 245	Engineering Graphics and Design	Pre: None		3	Umpqua
ENGR 245	Engineering Graphics and Design	Pre: Working knowledge of Windows. Coreq MTH 111		4	LBCC
EAS 115	Engineering Graphics	Pre: None		3	PSU
ENGR 248	Engineering Graphics and 3-D Modeling	Pre: None		3	OSU
EGR 248	Graphics and 3-D Modeling	Pre: EGR 211 and MTH 252 or consent of instructor		4	Chemeketa
ENGR 245	Engineering Graphics and Design	Pre: None		3	Umpqua
ENGR 115	Engineering Graphics	Pre: None Corequisite: MTH 112		3	Lane