Engineering

at

Chemeketa Community College

go.chemeketa.edu/engineering

Engineers play an essential role in the technical building blocks of society. Huge earthmovers, super computers, space probes, lifesaving medical equipment, super efficient power plants, or a modern freeway; engineers are involved in design, construction and operation of new developments and technologies. Engineers are indispensable in almost every area of society.

Chemeketa offers programs that closely follow the first two years of study at many public and private universities. In most cases, students are able to complete the first two years of a Bachelor's of Science Degree in Engineering at Chemeketa before transferring to a university for completion.

In this advising guide, you will find lists of classes that you can take at Chemeketa Community College and then transfer to several different universities as you pursue one of a number of different engineering disciplines.

Questions?

Contact: Halston Tuss, P.E.

halston.tuss@chemeketa.edu

Summer 2026

Answers to Important Questions:

How do I know I would like engineering?
Most engineers enjoy solving problems and helping people. Typical engineers like to plan or design and then build things. Having math and science skills or the willingness to learn these is also important.

What classes should I take while at Chemeketa?
On the following pages you will find several lists of classes that you can take at Chemeketa to complete the first two years of many engineering disciplines before transferring to a variety of universities.

What if the kind of engineering I want to study is not listed or available?
If the following pages do not contain a program of study for the kind of engineering discipline that you want to pursue it may, in many cases, be a simple manner of contacting an engineering advisor (Halston Tuss, P.E. halston.tuss@chemeketa.edu) to have a curriculum constructed for your particular engineering discipline. If the engineering discipline is not offered at an Oregon university then you might consider an alternative. For example, structural engineering is usually studied as a subcategory of civil engineering. Automotive engineering and robotics are often covered by mechanical or electrical engineering classes depending on the specialty.

Do I have to be accepted into the program at Chemeketa?
No, as long as you are a registered Chemeketa student and meet the class prerequisites you can start taking engineering classes.

If I need help with my schedule whom should I talk to?
Students are strongly encouraged to stay in contact with an engineering advisor at Chemeketa (Halston Tuss, P.E. halston.tuss@chemeketa.edu) in addition to an advisor at the school where they intend to transfer. See attached pages for contact information. Proper advising is very important because many classes have very restrictive prerequisites and many classes are only offered one time per year.

What if I am not ready to start with MTH251?
Students may start the program with MTH112 in place of MTH251. The student will then have to catch up by taking MTH253 concurrently with MTH256 spring of their second year.

What degree do I get at Chemeketa?
The class lists on the following pages do not, in most cases, satisfy the requirements for any associate degree through Chemeketa. Most engineering students simply transfer credits to the university on the way to a bachelor's degree. Students that want to pursue an associate degree through Chemeketa are encouraged to contact an advisor.

CHEMEKETA COMMUNITY COLLEGE
classes for transfer to
PORTLAND STATE UNIVERSITY
Transfer Engineering Guide

	CIVIL ENGINEERING		*ELEC. ENGINEERING*		*MECH. ENGINEERING*		*ENVIRO. ENGINEERING*		*COMP. ENGINEERING*	
	COURSE	CR	COURSE	CR	COURSE	CR	COURSE	CR	COURSE	CR
FALL	CH221	5	CH221	5	CH221	5	CH221	5	CH221	5
	GE101	3	GE101	3	GE101	3	GE101	3	GE101	3
	MTH251	5	HUM or SS		MTH251	5	MTH251	5	HUM or SS	
	HUM or SS		MTH251	5	HUM or SS		HUM or SS		MTH251	5
	DRF130*	3			DRF130*	3	DRF130*	3		
WINTER	CH222	5	GE102	3	CH222	5	CH222	5	GE102	3
	GE102	3	MTH252	5	GE102	3	GE102	3	MTH252	5
	EGR248	3	WR121Z	4	EGR248	3	EGR248	3	WR121Z	4
	MTH252	5	HUM or SS		MTH252	5	MTH252	5	HUM or SS	
	WR121Z	4					WR121Z	4		
SPRING	COMM111Z	4	COMM111Z	4	COMM111Z	4	COMM111Z	4	COMM111Z	4
	MTH264+265	4	MTH253Z	4	WR121Z	4	MTH264+265	4	MTH253Z	4
	WR227Z	4	HUM or SS		HUM or SS		WR227Z	4		
	HUM or SS		SEE NOTE #5		SEE NOTE #5				SEE NOTE #5	
	SEE NOTE #1		SEE NOTE #1		SEE NOTE #1		SEE NOTE #1		SEE NOTE #1	
FALL	MTH254	5	EGR201	4	EGR201	4	MTH254	5	EGR201	4
	EGR211	4	MTH254	5	MTH254	5	EGR211	4	CS161	4
	PH211+PH214	5	PH211+PH214	5	EGR211	4	PH211+PH214	5	PH211+PH214	5
	HUM or SS		CS161	4	PH211+PH214	5				
	SEE NOTE #3		SEE NOTE #2				SEE NOTE #3		SEE NOTE #2	
WINTER	EGR212	4	EGR202	4	EGR212	4	EGR212	4	EGR202	4
	PH212+PH215	5	PH212+PH215	5	PH212+PH215	5	PH212+PH215	5	PH212+PH215	5
	HUM or SS		HUM or SS		HUM or SS		HUM or SS		CS162	4
			CS162	4			SEE NOTE #4			
SPRING	MTH256	4	EGR203	4	MTH256	4	MTH256	4	EGR203	4
	EGR213	4	MTH256	4	EGR213	4	EGR213	4	MTH256	4
	PH213+PH216	5	PH213+PH216	5	PH213+PH216	5	PH213+PH216	5	PH213+PH216	5

Students are encouraged to contact Halston Tuss, P.E. (halston.tuss@chemeketa.edu) at Chemeketa Community College for individual advising.

Students are encouraged to contact an advisor at PSU (https://www.pdx.edu/cecs/academic-advising) as early as possible to learn of any possible changes and deadlines.

* DRF130 or equivalent is a prerequisite to EGR248. If you have prior AutoCAD experience, contact EGR248 instructor for possible DRF130 waiver.

HUM or SS -->Indicates humanities or social science electives that satisfy the arts and letters requirements for PSU. Recommended to contact an advisor at PSU.

NOTE #1 Students that have never used spreadsheets in a technical environment are encouraged to take GE 103.

NOTE #2 Students wanting to become professional engineers are strongly encouraged to take EGR 211 and EGR 212.

NOTE #3 Students wanting to become professional engineers are strongly encouraged to take EGR 201.

NOTE #4 Environmental engineering students need to take BI234 and its prerequisites.

NOTE #5 ME and ECE students will be required to take MTH261 at PSU. For ME, MTH231 is recommended.

CHEMEKETA COMMUNITY COLLEGE
classes for transfer to
OREGON INSTITUTE of TECHNOLOGY
Transfer Engineering Guide
for
CIVIL ENGINEERING

	First Year		***Second Year***	
	COURSE	CR	COURSE	CR
FALL	CH221	4	MTH254	5
	GE101	3	EGR211	4
	MTH251	5	PH211+PH214	5
	DRF130	3		
WINTER	CH222	4	PH212+PH215	5
	GE102	5	HUM or SS	
	MTH252	5		
	WR121Z	4		
	DRF131	3		
SPRING	COMM111Z	4	MTH256	4
	GE103	3	EGR213	4
	WR227Z	4	EGR214	3
	HUM or SS		PH213+PH216	5

Students are encouraged to work CVL143 and 144 into their schedules before leaving Chemeketa Community College.

Students are encouraged to contact Halston Tuss, P.E. (halston.tuss@chemeketa.edu) at Chemeketa Community College for individual advising.

Students are encouraged to contact an advisor at OIT as early as possible to make contacts and learn of any possible changes.

HUM or SS - Indicates humanities or social science electives that satisfy the OIT requirements.

CHEMEKETA COMMUNITY COLLEGE
classes for transfer to
OREGON STATE UNIVERSITY
Transfer Engineering Guide

	CIVIL		*ELECTRICAL & COMPUTER*		*MECHANICAL*	
	COURSE	CR	COURSE	CR	COURSE	CR
FALL	GE101	3	GE101	3	GE101	3
	MTH251	5	MTH251	5	MTH251	5
	CH201	4	CH201	4	CH201	4
	DRF130*	3	CORE ED	3	DRF130*	3
	WR121Z	4	WR121Z	4	WR121Z	4
WINTER	GE102	3	GE102	3	GE102	3
	MTH252	5	MTH 231	4	MTH252	5
	CH202	4	MTH252	5	CH202	4
	EGR248	3	COMM111Z	4	EGR248	3
	COMM111Z	4	Additional Math or Sci for ECE	4	COMM111Z	4
SPRING	GE103	3	GE103	3	GE103	3
	MTH264 + MTH265	4	MTH264	2	MTH NOTE	3
	EC201Z or EC202Z**	4	WR227Z	4	EC201Z or EC202Z**	4
	CORE ED	3	CORE ED	3	CORE ED	3
	WR227Z	4	CORE ED	3	WR227Z	4
FALL	EGR211	4	EGR201	4	EGR201	4
	MTH254	5	MTH254	5	EGR211	4
	PH211 + PH214	5	PH211 + PH214	5	MTH254	5
	CORE ED	3	CS161	4	PH211 + PH214	5
	Basic Science for CE		Note #1 (Classes @ OSU)		CORE ED	3
WINTER	EGR212	4	EGR202	4	EGR202	4
	PH212 + PH215	5	MTH255 or EGR214***	4	EGR212	4
	DRF220	4	PH212 + PH215	5	PH212 + PH215	5
	CORE ED	3	CS162	4	CORE ED	3
			CORE ED	3		
SPRING	EGR213	4	EGR203	4	EGR213	4
	MTH256	4	MTH256	4	MTH256	4
	PH213 + PH216	5	PH213 + PH216	5	PH213 + PH216	5
	EGR214	3			EGR214	3
					Note #2	3

Students are encouraged to contact Halston Tuss, P.E. (halston.tuss@chemeketa.edu) at Chemeketa Community College for individual advising or for help with engineering disciplines not shown above.

Students are encouraged to contact an advisor at OSU (http://engr.oregonstate.edu/) as early as possible to make contacts and learn of any possible changes.

CORE ED: Indicates OSU Core Education electives that satisfy the Arts and Humanities - Global, Arts and Humanties - General, Social Science, and Difference, Power and Oppression: Foundations categories. See the last page of this guide.
Civil and Mechanical Engineering requires EC201Z or EC202Z for the Social Science Core Education category

Basic Science for CE: Basic Science requirement for Civil Engineering. Choose one from BI101, BI102, BI103, CH114, GS107.

Additional Math or Sci for ECE: Additional math or science requirement for Electrical & Computer Engineering. Includes any 200 level or higher BIO, CH, MTH, PH, Stat
Recommendation: complete both MTH255 and EGR214 (one or other already required) or CH202

Note #1: It is recommended that ECE students take ECE200, ECE204, and CS274 through OSU before their Junior Year
Dual Enrollment would be required (https://partnerships.oregonstate.edu/)
Refer to OSU EECS Course Forecast Document to plan your schedules (engineering.oregonstate.edu/EECS/MyEECS)

Note #2: Mechanical Engineering students are encouraged to take OSU's ME203 before their Junior year.

MTH NOTE: Mechanical Engineering students are encouraged to take OSU's MTH341 before their Junior year. It's prerequisite is MTH254

* DRF130 or equivalent is a prerequisite to EGR248. If you have prior AutoCAD experience, contact EGR248 instructor for possible DRF130 waiver.
** Civil and Mechanical Engineering requires EC201Z or EC202Z for the Social Science Core Education category
*** MTH255 or EGR214 required. MTH255 offered Winter, EGR214 offered Spring. Taking both satisfies the additional math or science elective required for ECE students

CHEMEKETA COMMUNITY COLLEGE
classes for transfer to
OREGON STATE UNIVERSITY
Transfer Engineering Guide

	INDUSTRIAL		*ARCHITECTURAL*	
	COURSE	CR	COURSE	CR
FALL	GE101	3	GE101	3
	MTH251	5	MTH251	5
	CH201	4	CH201	4
	DRF130*	3	DRF130*	3
	WR121Z	4	WR121Z	4
WINTER	GE102	3	GE102	3
	MTH252	5	MTH252	5
	CH202	4	CH202	4
	EGR248	3	EGR248	3
	COMM111Z	4	COMM111Z	4
SPRING	GE103	3	GE103	3
	CORE ED	3	MTH264 + MTH265	4
	CORE ED	3	EC201Z or EC202Z**	4
	WR227Z	4	CORE ED	3
	NOTE #1		WR227Z	4
FALL	EGR201	4	EGR201	4
	EGR211	4	EGR211	4
	MTH254	5	MTH254	5
	PH211 + PH214	5	PH211 + PH214	5
	CORE ED	3	Basic Science for AE	
	MTH NOTE	3		
WINTER	EGR212	4	PH212 + PH215	5
	PH212 + PH215	5	CORE ED	3
	CORE ED	3		
	NOTE #1			
SPRING	EGR213	4	EGR213	4
	MTH256	4	MTH256	4
	PH213 + PH216	5	PH213 + PH216	5
			EGR214	3

Students are encouraged to contact Halston Tuss, P.E. (halston.tuss@chemeketa.edu) at Chemeketa Community College for individual advising or for help with engineering disciplines not shown above.

Students are encouraged to contact an advisor at OSU (http://engr.oregonstate.edu/) as early as possible to make contacts and learn of any possible changes

CORE ED: Indicates OSU Core Education electives that satisfy the Arts and Humanities - Global, Arts and Humanties - General, Social Science, and Difference, Power and Oppression: Foundations categories. See the last page of this guide.
Architectural Engineering requires EC201Z or EC202Z for the Social Science Core Education category
Architectural Engineering requires ART209 at OSU for the Arts and Humanties - Global Category

NOTE #1 Industrial Engineering students are encouraged to take the following OSU classes before their Junior year
IE212
IE255
ENGR390

Basic Science for AE: Basic Science requirement for Architectural Engineering. Choose one from BI101, BI102, BI103, CH114, GS107.

MTH NOTE Industrial Engineering students are encouraged to take OSU's MTH341 before their Junior year. It's prerequisite is MTH254

* DRF130 or equivalent is a prerequisite to EGR248. If you have prior AutoCAD experience, contact EGR248 instructor for possible DRF130 waiver
** Architectural Engineering requires EC201Z or EC202Z for the Social Science Core Education category

CHEMEKETA COMMUNITY COLLEGE
classes for transfer to
OREGON STATE UNIVERSITY
Transfer Engineering Guide

	CHEMICAL		*ENVIRONMENTAL*		*BIOENGINEERING*	
	COURSE	CR	COURSE	CR	COURSE	CR
FALL	GE101	3	GE101	3	GE101	3
	MTH251	5	MTH251	5	MTH251	5
	CH221	5	CH221	5	CH221	5
	WR121Z	4	WR121Z	4	WR121Z	4
	BI103	4	DRF130*	3	CORE ED	3
WINTER	GE102	3	GE102	3	GE102	3
	MTH252	5	MTH252	5	MTH252	5
	CH222	5	CH222	5	CH222	5
	COMM111Z	4	COMM111Z	4	COMM111Z	4
	CORE ED	3	EGR248	3	CORE ED	3
SPRING	GE103	3	GE103	3	GE103	3
	MTH264 + MTH265	4	MTH264 + MTH265	4	MTH264 + MTH265	4
	CH223	5	CH223	5	CH223	5
	WR227Z	4	WR227Z	4	WR227Z	4
					BI112	4
FALL	EGR201	4	EGR211	4	EGR201	4
	EGR211	4	PH211 + PH214	5	EGR211	4
	PH211 + PH214	5	MTH254	5	PH211 + PH214	5
	MTH254	5	CORE ED	3	MTH254	5
	CH241 + CH241B	5	CH241 + CH241B	5	CH241 + CH241B	5
WINTER	PH212 + PH215	5	EGR212	4	PH212 + PH215	5
	CH242 + CH242B	5	PH212 + PH215	5	CH242 + CH242B	5
	CORE ED	3	CH242 + CH242B	5	CORE ED	3
	CORE ED	3	CORE ED	3	CORE ED	3
			CORE ED	3		
SPRING	PH213 + PH216	5	EGR213	4	PH213 + PH216	5
	MTH256	4	PH213 + PH216	5	MTH256	4
	CH243 + CH243B	5	MTH256	4	CH243 + CH243B	5
	CORE ED	3	CH243 + CH243B	5	NOTE #1	
	NOTE #1		CORE ED	3	NOTE #2	
			NOTE #1			

Students are encouraged to contact Halston Tuss, P.E. (halston.tuss@chemeketa.edu) at Chemeketa Community College for individual advising or for help with engineering disciplines not shown above.

Students are encouraged to contact an advisor at OSU (http://engr.oregonstate.edu/) as early as possible to make contacts and learn of any possible changes

CORE ED: Indicates OSU Core Education electives that satisfy the Arts and Humanities - Global, Arts and Humanties - General, Social Science, and Difference, Power and Oppression: Foundations categories. See the last page of this guide.

NOTE #1 Chemical, Environmental, and BioEngineering all have a sequence of second year classes not offered at Chemeketa Contact OSU for more details on an online option, CBEE 280. Prereq is MTH256. Replacement for CBEE211 & CBEE212 (But not CBEE213)

NOTE #2 It is also recommended that Bio Engineering students take OSU's BI231 and 233. Can be taken concurrently summer term @ OSU in person or an equivalent at another institution to prepare for Junior level study.
Otherwise full series BI231, BI232, BI233 at Chemeketa will be required.

* DRF130 or equivalent is a prerequisite to EGR248. If you have prior AutoCAD experience, contact EGR248 instructor for possible DRF130 waiver.

CHEMEKETA COMMUNITY COLLEGE
classes for transfer to
OREGON STATE UNIVERSITY
Transfer Engineering Guide

Construction Engineering Management

	First Year		*Second Year*	
	COURSE	CR	COURSE	CR
FALL	CH201	4	EGR211	4
	GE101	3	PH211+PH214	5
	DRF130*	3	COMM111Z	4
	MTH251**	5	CORE ED	3
WINTER	GE102	3	PH212+PH215	5
	EGR248	3	CORE ED	3
	MTH252	5	CORE ED	3
	WR121Z	4		
SPRING	GE103	3	EGR213	4
	WR227Z	4	EGR214	3

In addition to the above classes the following classes will transfer to OSU to help the student prepare themselves for Junior level study. They have not been placed in in a particular term as they are offered in a variety of formats and at a variety of times. It is recommended that students take the BA classes in their second year of study after the GE sequence.

EC201
EC202
BA211, BA212 and BA213***
BA226Z

Students are encouraged to contact Halston Tuss, P.E. (halston.tuss@chemeketa.edu) at Chemeketa Community College for individual advising.

Students are encouraged to contact an advisor at OSU (http://engr.oregonstate.edu/) as early as possible to make contacts and learn of any possible changes.

CORE ED: Indicates OSU Core Education electives that satisfy the Arts and Humanities - Global, Arts and Humanties - General, Social Science, and Difference, Power and Oppression: Foundations categories. See the last page of this guide.

* DRF130 or equivalent is a prerequisite to EGR248. If you have prior AutoCAD experience, contact EGR248 instructor for possible DRF130 waiver.
** Requires a prerequisite of MTH112
*** The Chemeketa BA211, 212, 213 sequence may be replaced with OSU's BA315 at OSU.

Chemeketa Community College - Oregon State University

BASIC COURSES REQUIRED FOR ENGINEERING DEGREES (Core Education Curriculum 2025-2026)

Requirements	Credit Hrs	Chemeketa Courses Which Satisfy Requirements
Writing Foundations	4	WR121Z
Writing Elevation	4	WR227Z
Communication, Media, and Society	4	COMM111Z
Quantitative Literacy and Analysis	5	MTH112Z or MTH251
Scientific Inquiry and Analysis	8	CH201 (or CH221), PH211
Art and Humanities - General	3-4	ART101, 102, 141, 202, 203, 204, 205, 206, 207, 258, 261, 292; ENG100, 104Z, 216, 220, 245, 261, 269; FA256, 257; HST201, 202, 203; HUM106; JNL224; LING210; PHL205, 206 MUS105, 161; WR240, 241, 242, 243, 250, 262
Art and Humanities - Global	3-4	ART201; ATH103; ENG108, 109, 250; GEG106; HST106; HUM120, 220, 221; REL160, 201, 202, 203; RUS201
Social Science	3-4	ATH101, 102, 212, 214, 231; CLA201, 202, 203; EC200, 201, 202; ED216; GEG107, 206, 207; HE209; HST237, 258, 269; HUM225; PS201, 203; PSY101, 104, 201Z, 202Z, 218; SOC204Z, 213, 223, 232; SSC100; WS101, 102
Difference, Power, and Oppression: Foundations	3	ED258, WS101, ED216

STUDENTS ENTERING OSU WHO HAVE EARNED AN ASSOCIATE OF ARTS OREGON TRANSFER DEGREE FROM CHEMEKETA WILL BE CONSIDERED TO HAVE MET OSU'S LOWER DIVISION BACCALAUREATE CORE CURRICULUM REQUIREMENTS.

Students graduating from high school in 1997 or after must have completed two years of the same foreign language in high-school with a C or better or two terms of the same college-level second language or demonstrate proficiency to be admitted.