Whatcom COMMUNITY COLLEGE

Associate in Science (AS-T) Transfer Degree

Planning Worksheet 2019-20

General Engineering

Student:

READ THIS FIRST:
- **Start your degree with math and English. No degree plans can be done without math and English placement.**
- **The final responsibility for understanding and fulfilling all graduation requirements rests with each student.**

Preparatory math as necessary: ☐ MATH 97 ☐ MATH 98 ☐ MATH 99 ☐ MATH& 141 ☐ MATH& 142

Pre-Reqs	Course		Credits	Taken
CORE REQUIREMENTS: MATH				
MATH& 142 with C or better	MATH& 151	Calculus I	5	
MATH& 151 with C or better	MATH& 152	Calculus II	5	
MATH& 152 with C or better	MATH& 163	Calculus III	5	
		Subtotal	**15**	
CORE REQUIREMENTS: SCIENCE AND ENGINEERING				
Prior or concurrent MATH& 141; placement in ENGL& 101	ENGR 101	Introduction to Engineering	5	
	Note: ENGR 101 may be waived for students entering the pathway with advanced standing (MATH&152 or higher). If waived, students must complete 5 additional credits in program-specific requirements.			
MATH& 141 with C or better. Recommended: CHEM& 121 or one year high school chemistry	CHEM& 161	General Chemistry with Lab I	5	
MATH& 151 with C or better; placement in ENGL& 101; previous college physics course or high school physics	PHYS& 221	Engineering Physics I	5	
MATH& 152 with C or better; PHYS& 221 with C or better; placement in ENGL& 101	PHYS& 222	Engineering Physics II	5	
PHYS& 222 with C or better	PHYS& 223	Engineering Physics III	5	
		Subtotal	**20-25**	
PROGRAM-SPECIFIC REQUIREMENTS				
Students must complete a minimum of 30 credits (35 credits, if ENGR 101 waived above) selected from the following list. The appropriate selection depends on the intended engineering major and transfer institution.				
Prior or concurrent CHEM& 161; placement in ENGL& 101	BIOL& 221	Majors Ecology/Evolution	5	
CHEM& 161 with C- or better; BIOL& 221 with C- or better; placement in ENGL& 101	BIOL& 222	Majors Cell Biology/Molecular	5	
BIOL&222 with C- or better; placement in ENGL& 101	BIOL& 223	Majors Organismal Physiology	5	
CHEM& 161 with C or better	CHEM& 162	General Chemistry with Lab II	5	
CHEM& 162 with C or better	CHEM& 163	General Chemistry with Lab III	5	
CHEM& 163	CHEM& 261	Organic Chemistry with Lab I	5	
CHEM& 261	CHEM& 262	Organic Chemistry with Lab II	5	
CHEM& 262	CHEM& 263	Organic Chemistry with Lab III	5	
MATH 99	CS 140	Computer Programming Fundamentals I	5	
CS 140	CS 145	Computer Programming Fundamentals II	5	
CS 145	CS 240	Data Structure and Algorithm Fundamentals	5	
ENGL& 101 with C- or better	ENGL& 230	Technical Writing	3	
ENGL& 101 with C- or better	**or** ENGL& 235	Technical Writing	5	
	Note: Credit for both ENGL& 230 and ENGL& 235 cannot be applied to this requirement.			
Prior or concurrent MATH& 141. Recommended: ENGR 101	ENGR& 114	Engineering Graphics	**5**	

LIST CONTINUES ON BACK

	program-specific requirements list continued from previous page			
Pre-Reqs	**Course**		**Credits**	**Taken**
MATH& 152 with C or better **or both** MATH& 142 and ENGR 101 with grades of C or better; placement in ENGL& 101	ENGR 151	Introductory Design and Computing	5	
CHEM& 161 and PHYS& 221 with a C or better	ENGR 201	Fundamentals of Material Science	5	
PHYS& 223 with C or better; prior or concurrent MATH 238; placement in ENGL& 101. Recom: ENGR 151 and MATH 204	ENGR& 204	Electrical Circuits	6	
MATH& 152 with C or better; PHYS& 221 with C or better; placement in ENGL&101	ENGR& 214	Statics	5	
MATH& 163 with C or better; PHYS& 221 with C or better; ENGR& 214 with C or better	ENGR& 215	Dynamics	5	
CHEM& 162 with C or better; MATH& 152 with C or better; PHYS& 222 with C or better; placement in ENGL&101	ENGR& 224	Thermodynamics	5	
	Note: See an advisor if taking ENGR& 224 in 2018-19.			
ENGR& 214 with C or better; placement in ENGL& 101	ENGR& 225	Mechanics of Materials	5	
MATH& 163 with C or better; MATH 207 with C or better. Recom: prior/concurrent MATH204	ENGR 240	Applied Numerical Methods	5	
MATH& 151 with C or better	MATH 204	Introduction to Linear Algebra	5	
MATH& 152 with C or better	MATH 207	Taylor Series	1	
MATH& 151 with C or better	**or** MATH 208	Sequences and Series	3	
	Note: Credit for both MATH 207 and MATH 208 cannot be applied to this requirement.			
MATH& 152 with C or better	MATH 238	Introduction to Differential Equations	5	
MATH& 163 with C or better	MATH& 264	Calculus IV	5	
Varies; see catalog	Other courses designated as H/Hp, SS, MS/MSl, CC, OC, Q/SR, LE		0-5	
		Subtotal	**30-35**	
	***Note**: See an advisor if selecting Materials Science or Thermodynamics in 2018-19.			
GENERAL EDUCATION REQUIREMENTS				
ENGL 95 or placement in ENGL& 101	ENGL& 101	English Composition I	5	
Varies; see catalog	Any course designated as humanities (H)		5	
Varies; see catalog	Any course designated as social sciences (SS)		5	
Varies; see catalog	Any additional course designated as humanities (H) or social sciences (SS)		5	
	Note: See an advisor for help choosing appropriate courses in this area. Depending on the major and the transfer institution, certain courses are preferred.			
		Subtotal	**20**	
		Total	**90**	
ADDITIONAL GRADUATION REQUIREMENTS				
	Minimum of 15 college-level credits at Whatcom Community College			
	Minimum 2.0 overall GPA in courses applied to this degree			
ADVISOR RECOMMENDATIONS				
• Complete each science sequence at a single college.				
• Specific majors at each university may have different/additional prerequisites/GPA requirements. Check with your intended university for details.				
• University of Washington requires foreign language for admission: two years of a single language in high school, or two quarters of a single language in college. Some majors also require a third year/quarter for graduation.				
Fall 2019			Revised 10/22/2019	