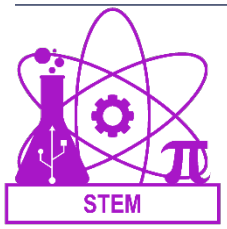
BIG BEND COMMUNITY COLLEGE

STEM

PRE-ENGINEERING – ME/CE/MS&E/AERO (OTRE)



Big Bend Community College offers a comprehensive, state approved, university backed, transfer degree in pre-engineering. The Associate of Science Transfer (Track II) – Major Related Program degree (AS-T II MRP OTRE) offers students the ability of entering partnering universities with junior standing in their engineering major. An MRP degree eliminates the guess work of what courses to take in order to be best prepared for entering a specific field of study, in this case engineering.

The AS-T II MRP degree encompasses the certification requirements needed to be admitted into engineering majors at most public and private universities in the Pacific Northwest, specifically in the areas of:

- ☐ Mechanical Engineering
- ☐ Civil Engineering
- ☐ Material Science and Engineering
- ☐ Aeronautical/Aerospace Engineering

NAME: _____

SID: _____

ENTRY REQUIREMENTS

☐ Complete Admissions and Placement processes

☐ Meet with an advisor prior to enrolling

DEGREE REQUIREMENTS

Breadth and Engineering Core (85Credits)

☐ CHEM& 161 – General Chemistry I (5)
☐ CHEM& 162 – General Chemistry II (5)
☐ ENGL& 101 – Composition I (5)
☐ Humanities & Social Sciences (15)
(No more than 15 credits of either area)

Some recommended Humanities courses:
CMST& 220 – Public Speaking (5)
HUM 214 – Diversity Issues (5)
Foreign Language (FREN, GERM, SPAN) (5)
RELS

Some recommended Social Science courses:
ECON& 201 – Microeconomics (5)
PSYC& 100 – General Psychology (5)
POLS& 203 – International Relations (5)
SOC& 101 – Introduction to Sociology (5)

☐ ENGR& 214 – Statics (5)
☐ ENGR& 215 – Dynamics (5)
☐ ENGR& 225 – Mechanics of Materials (5)
☐ MATH& 151 – Calculus I (5)
☐ MATH& 152 – Calculus II (5)
☐ MATH& 163 – Calculus 3 (5)
☐ MATH 220 – Linear Algebra (5)
☐ MATH 230 – Differential Equations (5)
☐ PHYS& 221 – Engineering Physics I (5)
☐ PHYS& 222 – Engineering Physics II (5)
☐ PHYS& 223 – Engineering Physics III (5)

Electives (20 Credits)

☐ CS& 131 – Programming C++ (5)
☐ ENGL& 235 – Technical Writing (5)
☐ ENGR& 111 – Engineering Graphics I (2D) (5)
☐ ENGR& 112 – Engineering Graphics II (3D) (5)
NOTE: only 5 credits of graphics can be counted toward total elective credits.

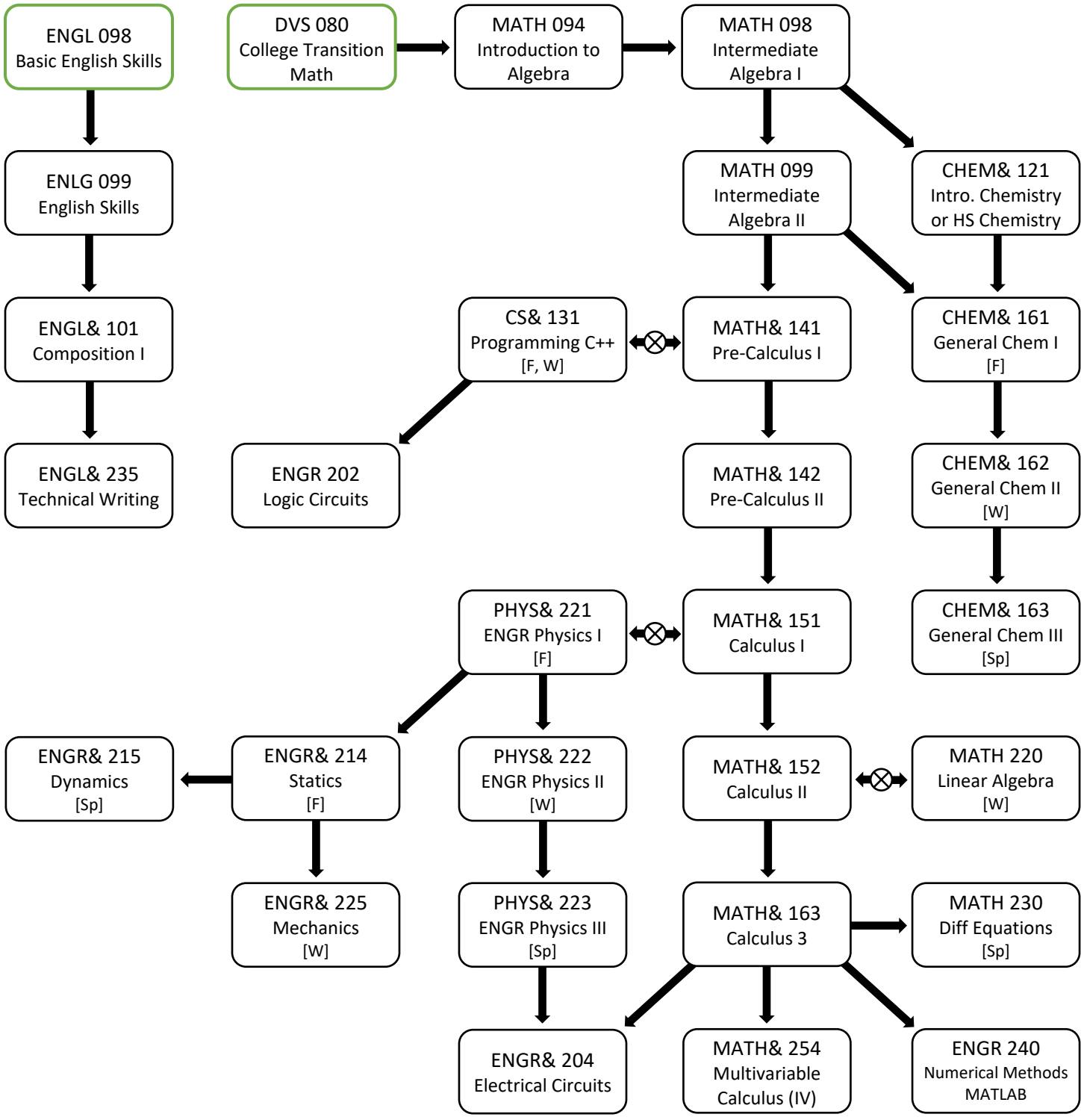
☐ ENGR& 204 – Electrical Circuits (6)
☐ ENGR 240 – Applied Numerical Methods/MATLAB (5)
☐ MATH& 254 – Multivariable Calculus (5)

105 Total Degree Credits

Rev. 2018.07.25

PRE-ENGINEERING (OTRE) PREREQUISITE FLOW CHART

Start by talking with your assigned advisor to determine which courses to take first based on your placement scores.



KEY

STARTING POINT of SEQUENCE

PRE-requisite

CO-requisite

[F = fall W = winter Sp = spring Su = summer]

Program Courses WITHOUT PRE-requisites

Program Requirements

ENGR& 111 – Engineering Graphics I (2D) [F, W]

ENGR& 112 – Engineering Graphics II (3D) [W, Sp]

NAME: _____

STARTING WITH PLACEMENT AT PRE-CALCULUS ENGR OTRE QUARTERLY PROGRAM PLAN (YEAR ONE)		
FALL (15-18 credits)	WINTER (15 credits)	SPRING (15 credits)
CHEM& 161 (5) ENGL& 101 (5) MATH& 141 (5) ENGR 110 or MCT 110 (3) advised	CHEM& 162 (5) MATH& 142 (5) Humanities/Social Science (5)	CHEM& 163 (5) required for WSU MATH& 151 (5) Humanities/Social Science (5)
QUARTERLY PROGRAM PLAN (YEAR TWO)		
FALL (10 credits)	WINTER (15 credits)	SPRING (15 credits)
MATH& 152 (5) PHYS& 221 (5)	ENGR& 111 (5) MATH& 163 (5) PHYS& 222 (5)	MATH 230 (5) PHYS& 223 (5) Humanities/Social Science (5)
EXAMPLE QUARTERLY PROGRAM PLAN (YEAR THREE)		
FALL (15 credits)	WINTER (15 credits)	SPRING (15 credits)
CS& 131 (5) ENGR& 214 (5) MATH& 254 (5)	ENGR& 225 (5) MATH 220 (5) Additional Humanities/Social Science	ENGL& 235 (5) ENGR& 112 (5) ENGR& 215 (5)

SID: _____

STARTING WITH PLACEMENT BELOW PRE-CALCULUS ENGR OTRE QUARTERLY PROGRAM PLAN (YEAR ONE)		
FALL (15-18 credits)	WINTER (15 credits)	SPRING (15 credits)
ENGL 099 (5) ENGR& 111 (5) MATH 094-099 (5) ENGR 110 or MCT 110 (3) strongly recommended	ENGL& 101 (5) MATH 094-099 (5) Humanities/Social Science (5)	ENGR& 112 (5) MATH& 141 (5) CHEM& 121 (5) if needed or Humanities/Social Science (5)
QUARTERLY PROGRAM PLAN (YEAR TWO)		
FALL (15 credits)	WINTER (15 credits)	SPRING (10-15 credits)
CHEM& 161 (5) MATH& 142 (5) MATH 094-099 (5)	CHEM& 162 (5) MATH& 151 (5) Humanities/Social Science (5)	MATH& 152 (5) CHEM& 163 (5) required for WSU or PHYS& 114 (5) if recommended by your advisor or instructor
EXAMPLE QUARTERLY PROGRAM PLAN (YEAR THREE)		
FALL (10 credits)	WINTER (10 credits)	SPRING (10 credits)
MATH& 163 (5) PHYS& 221 (5)	MATH 220 (5) PHYS& 222 (5)	MATH 230 (5) PHYS& 223 (5)
EXAMPLE QUARTERLY PROGRAM PLAN (YEAR FOUR)		
FALL (10 credits)	WINTER (10 credits)	SPRING (10 credits)
MATH& 254 (5) ENGR& 214 (5)	CS& 131 (5) ENGR& 225 (5)	ENGL& 235 (5) ENGR& 215 (5)

NAME: ____________

SID: ____________

ADVISING		
FALL	WINTER	SPRING
☐ Fill out FAFSA or WAFSA for next year ☐ Meet with your advisor Last fall @ BBCC ☐ Begin university admissions process ☐ Research outside scholarships ☐ Identify letters of recommendation	☐ Assess program plan with advisor ☐ BBCC Foundation scholarship app Last winter @ BBCC ☐ Submit admissions app by Jan 15 ☐ Complete university scholarship apps ☐ Apply for BBCC graduation	☐ Assess program plan with advisor ☐ Research summer employment Last spring @ BBCC ☐ Submit final transcripts to universities ☐ Confirm with a university

QUARTERLY REGISTRATION PLANNING					
QUARTER ☐ FALL ☐ WINTER ☐ SPRING ☐ SUMMER			REGISTRATION ACCESS CODE ____________		
CLASS	TITLE	CREDITS	DAYS	TIME	ITEM #

QUARTERLY REGISTRATION PLANNING					
QUARTER ☐ FALL ☐ WINTER ☐ SPRING ☐ SUMMER			REGISTRATION ACCESS CODE ____________		
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