

Math, Science, and Engineering (MSE) Division Course Offerings and Prerequisites

*Note: The quarters indicated are planned offerings for 2021-2022 only. Courses may be canceled, and/or times shifted, so offerings are not guaranteed.

Bold = Important change - Engr 170 only offered Fall 21, not Winter 22.

2/1/21

	Course	Title	Quarters Offered*				Prerequisite classes
			Su	F	W	Sp	
Biology, Botany, Nutrition & Natural Science	Biol& 100	Survey of Biology			y	y	See General Science Prerequisite
	Biol 105	Fossils & History of Life		y	?	?	See General Science Prerequisite - same class as Geol 108
	Biol 108	Northwest Plants & Animals					See General Science Prerequisite
	Biol 125	Biology in the Field					See General Science Prerequisite
	Biol 140	Marine Biology		?		?	See General Science Prerequisite
	Biol& 160	General Cell Biology	o	y	y	y	See General Science Prerequisite. See Linked Class Option note.
	Biol& 175	Human Biology w/lab	o	y	y	y	See Modified General Science Prerequisite
	Biol& 221	Evolution, Ecology & Biodiversity		y		y	Chem&161 (minimum grade of C may be taken concurrently), Biol& 160 (minimum grade of C)
	Biol& 222	Cellular & Molecular Biology			y	y	Chem& 161 and Biol& 221 (minimum grade of C)
	Biol& 223	Biology of Organisms		y		y	Biol& 222 and Chem& 162 (minimum grade of C)
	Biol& 241	Human Anatomy & Phys 1	o	y	y	y	Biol& 160 (minimum grade of C) and either Chem& 121 or Chem& 140 (minimum grade of C)
	Biol& 242	Human Anatomy & Phys 2	o	y	y	y	Biol& 241 (minimum grade of C)
	Biol 243	Current Advances in Human A&P					Biol& 242 (minimum grade of C) or Biol& 223 (minimum grade of C)
	Biol& 260	General Microbiology	o	y	y	y	Chem& 121 or higher level chemistry (minimum grade of C)AND either Biol& 160 or Biol& 222 (minimum grade of C); Chem& 131 recommended
	Biol 280	Human Cadavar Prosection				y	Biol& 241 (minimum grade of C); instructor permission.
	Bio 294	Biology Research					Biol& 221 or Biol& 222 or Biol& 242 or Biol& 260. Each with a minimum grade of C or equivalent.
	Bot 101	General Botany		y		y	See General Science Prerequisite
Bot 179	Special Topics in Botany				y	See General Science Prerequisite	
Nut& 101	Human Nutrition	o	y	y	y	See General Science Prerequisite; recommended Chem& 110, Biol& 100 or Biol& 160 (minimum grade of C)	
Nutr 250	Nutrition in Healthcare	o		y		Biol& 175 or Biol& 242 (may be taken concurrently) with a minimum grade of C	
Sci 105	Intro Topics in Natural Science		y	?	?	See Sci 105 Prereq - Note this class allows concurrent enrollment in Math 90 or 93	
Chemistry	Chem& 110	Chemical Concepts	o	y	y	y	See General Prerequisite
	Chem& 121	Intro to Inorganic Chem	o	y	y	y	Math 95 (minimum grade of C; may be taken concurrently)
	Chem& 131	Intro to Organic/Biochem	o	y	y	y	Chem& 121 (minimum grade of C)
	Chem& 140	General Chem Prep w/ Lab	o	y	y	y	Math& 140 (minimum grade of C; may be taken concurrently) or Math 147 (minimum grade of C; can be taken concurrently)
	Chem& 161	General Chemistry 1		y	y	y	Chem& 140 (minimum grade of C) or Chem& 121 (minimum grade of C) or one year of high school chemistry; and either Math& 141 (minimum grade of C; may be taken concurrently) or Math 147 (minimum grade of C; may be taken concurrently) - See note.
	Chem& 162	General Chemistry 2	o		y	y	Chem& 161 (minimum grade of C)
	Chem& 163	General Chemistry 3	o	y		y	Chem& 162 (minimum grade of C)
	Chem& 261	Organic Chemistry 1		y			Chem& 163 (minimum grade of C)
	Chem& 262	Organic Chemistry 2			y		Chem& 261 (minimum grade of C)
Chem& 263	Organic Chemistry 3				y	Chem& 262 (minimum grade of C)	
Engineering & Computer Science	CS 120	Computer Science Principles		y	y	y	See General Science Prerequisite
	CS 142	Java Programming 1	o	y	y	y	Math& 141 or equivalent assessment (Note: If no prior programming experience, CS 120 recommended.)
	CS 143	Java Programming 2		y	y	y	CS 142 (minimum grade of C)
	Engr& 104	Intro to Engr and Design		y	y	y	See General Science Prerequisite
	Engr& 114	Engr Graphics/SolidWorks	o	y	y	y	See General Science Prerequisite
	Engr 170	Intro to Materials Science		y			Chem& 162 (may be taken concurrently) and Math& 141
	Engr& 204	Electric Circuits				y	Math 238 (may be taken concurrently) and Phys& 222
	Engr& 214	Statics		y		y	Phys& 221 and Math& 153
	Engr& 215	Dynamics			y		Engr& 214 and Math& 153
	Engr& 224	Thermodynamics				y	Phys& 221, Math& 152 and Chem& 161
	Engr& 225	Mechanics of Materials				y	Math& 153 (may be taken concurrently) and Engr& 214
Engr 240	Applied Numerical Methods			y		Math& 153 required. Math 220 recommended.	
Environmental Science, Geography, Geology & Oceanography	Envs& 101	Intro to Environmental Sci	y	y	y	y	See General Science Prerequisite
	Envs 210	Maps, GIS & Environment				y	See General Science Prerequisite - same class as Geog 210
	Geog 205	Physical Geography	o	o	o	o	See General Science Prerequisite
	Geog 210	Maps, GIS & Environment				y	See General Science Prerequisite - same class as Envs 210
	Geol& 101	Intro to Physical Geology		y	y	?	See General Science Prerequisite
	Geol 108	Fossils & History of Life		y	?	?	See General Science Prerequisite - same class as Bio 105
	Geol 179	Special Topics in Geology				?	none
	Ocea& 101	Intro to Oceanography		y	?	y	See General Science Prerequisite
Ocea 179	Special Topics in Oceanography					See General Prerequisite - offered as coordinated study with Ocea& 101	

Physics & Astronomy	Astr& 110	The Solar System		y	y	y	See General Science Prerequisite
	Astr& 115	Stars, Galaxies, Cosmos	o	y	y	y	See General Science Prerequisite
	Phys& 114	General Physics 1	o	y	y	y	Math 95 or higher (but not Math 136). Math 141 recommended. (Minimum grade of C for all.)
	Phys& 115	General Physics 2	o		y		Phys& 114; Math 95 or higher (but not Math 136). Math 141 recommended. (Minimum grade of C for all.)
	Phys& 116	General Physics 3				y	Phys& 114; Math 95 or higher (but not Math 136). Math& 141 recommended. (Minimum grade of C for all.)
	Phys& 221	Engr Physics - Mechanics		y	y	y	Math& 151 or equivalent. (Minimum grade of C.)
	Phys& 222	Engr Physics - E& M		y	y	y	Math& 152 or equivalent, and Phys& 221. (Minimum grade of C for all.)
	Phys& 223	Engr Physics - Waves, Optics		y	y	y	Phys& 221 (Minimum grade of C.)
Mathematics	Math 75	Review Arithmetic	o	y	y	y	ENGL/ 085 with a minimum grade of C (may be taken concurrently) or equivalent; and placement at MATH 075 level
	Math 85	Introduction to Elementary Algebra	o	y	y	y	ENGL/ 085 with a minimum grade of C (may be taken concurrently) or equivalent; and either MATH 075 with a minimum grade of C or equivalent or ABE 083 with a minimum grade of C.
	Math 90	Elementary Algebra	o	y	y	y	ENGL/ 085 with a minimum grade of C or equivalent; and either MATH 085 with a minimum grade of C or ABE 085 with a minimum grade of C or equivalent.
	Math 93	Descriptive Statistics with Algebra	o	y	y	y	MATH 085 or ABE 085 with a minimum grade of C or assessment above MATH 085 and ENGL/ 095 (may be taken concurrently) with a minimum grade of C or equivalent.
	Math 94	Statway Bridge to Business Algebra	o	y	y	y	MATH 136 with a minimum grade of C.
	Math 95	Intermediate Algebra	o	y	y	y	MATH 090 with a minimum grade of C or assessment above MATH 090; and ENGL/ 085 with a minimum grade of C or equivalent.
	Math 96	Accelerated Algebra	o	y	y	y	MATH 090 with a minimum grade of B or MATH 095 with a minimum grade of C or appropriate MATH placement; and ENGL/ 095 with a minimum grade of C or equivalent. Co-requisite: MATH 140.
	Math& 107	Math in Society	o	y	y	y	MATH 095 with a minimum grade of C or equivalent; and ENGL/ 095 with a minimum grade of C or assessment above ENGL/ 095 or equivalent.
	Math &131	Math for Elementary Education 1			y		MATH 095 and ENGL/ 095 with a minimum grade of C or equivalent.
	Math &132	Math for Elementary Education 2			y		MATH 095 and ENGL/ 095 with a minimum grade of C or equivalent.
	Math 136	Inferential Statistics	o	y	y	y	MATH 093 with a minimum grade of C.
	Math 140	Introduction to Precalculus	o	y	y	y	MATH 090 with a minimum grade of B or MATH 095 with a minimum grade of C or appropriate MATH placement; and ENGL/ 095 with a minimum grade of C or equivalent. Co-requisite: MATH 096.
	Math& 141	Precalculus I	o	y	y	y	MATH 140 with a minimum grade of C or appropriate MATH placement; and ENGL/ 095 with a minimum grade of C or equivalent
	Math& 142	Precalculus II	o	y	y	y	MATH& 141 with a minimum grade of C or appropriate MATH placement; and ENGL/ 095 with a minimum grade of C or equivalent.
	Math& 146	Introduction to Statistics	o	y	y	y	MATH 095 with a minimum grade of C or assessment above MATH 095 with a minimum grade of C; and ENGL/ 095 with a minimum grade of C or equivalent.
	Math 147	College Algebra for Business & Economic	o	y	y	y	MATH 095 with a minimum grade of C or MATH 094 with a minimum grade of C or equivalent; and ENGL/ 095 with a minimum grade of C or equivalent.
	Math& 148	Business Calculus	o	y	y	y	MATH 147 with a minimum grade of C or appropriate MATH placement and department permission; and ENGL/ 095 with a minimum grade of C or equivalent; and knowledge of Excel spreadsheet software including graphing.
	Math& 151	Calculus I	o	y	y	y	MATH& 142 with a minimum grade of C or appropriate MATH placement and department permission; and ENGL/ 095 with a minimum grade of C or equivalent.
	Math& 152	Calculus II	o	y	y	y	MATH& 151 with a minimum grade of C or appropriate MATH placement and department permission; and ENGL/ 095 with a minimum grade of C or equivalent.
	Math& 153	Calculus III	o	y	y	y	MATH& 152 with a minimum grade of C or appropriate MATH placement and department permission; and ENGL/ 095 with a minimum grade of C or equivalent.
Math 220	Linear Algebra	o	y	y	y	MATH& 153 with a minimum grade of C or appropriate MATH placement and department permission; and ENGL/ 095 with a minimum grade of C or equivalent.	
Math 238	Elements Of Differential Equations	o	y	y	y	MATH& 153 with a minimum grade of C or appropriate MATH placement and department permission; and ENGL/ 095 with a minimum grade of C or equivalent.	
Math& 254	Calculus IV	o	y	y	y	MATH& 153 with a minimum grade of C or appropriate MATH placement and department permission; and ENGL/ 095 with a minimum grade of C or equivalent.	

cm - Computer mediated. d = Day section. n = Night section. o = Online section. h = Hybrid Online. hd = Day Hybrid Online. hn = Night Hybrid Online. y = offering planned, format unknown. ? = course may be offered

Prerequisites and Notes	General Science Prerequisite	ENGL/ 95 (minimum grade of C); Math 90 OR 93 (minimum of C) or equivalent assessment
	Modified General Science Prerequisite	ENGL/ 95 (minimum grade of C); Math 90 OR 93 OR BUS 110 (minimum of C) or equivalent assessment
	Sci 105 Prerequisite	ENGL/ 95 (minimum grade of C); Math 90 OR 93 (minimum of C; may be taken concurrently) or equivalent assessment
	Chem& 161 Note	Students having recently completed a year of high school chem may be able to enroll in Chem& 161. Request a Milestone well before your registration appointment.