Webb Institute Undergraduate Curriculum Matrix **Rev. 7/22/2020**

FRESHMEN		*SOPHOMORE****		*JUNIOR*		*SENIOR*	
FALL	**SPRING**	**FALL**	**SPRING**	**FALL**	**SPRING**	**FALL**	**SPRING**
Math I Calculus I 4-0-4 MA 1	Math II Calculus II 4-0-4 MA 2	Math III Engrg Math I 3-0-3 MA 3A	Math IV Engrg Math II Math 4-0-4 MA 4A	Probability/ Statistics 4-0-4 MA 5	Thesis 0-1-½ TH 1	Thesis 0-5-2½ TH 2	Thesis 0-6-3 TH 3
Technical Communication 2-0-2 HU 1	Political Philosophy 3-0-3 HU 2	Western Culture I 3-0-3 HU 3	Western Culture II 2-0-2 HU 4	Humanities/ Social Science Elective 3-0-3 HU 5	Development of American Government 2-0-2 HU 6	Professional Ethics 3-0-3 HU 7	Professional Presentation 2-0-2 HU 8
Chemistry 3-0-3 SC 1	Material Science 3-0-3 SC 3	Strength of Materials 3-0-3 ES 3	Dynamics 3-0-3 ES 6	Vibrations 3-0-3 ES 8	Hydrodynamics 3-0-3 ES 9		Special Topics 3-0-3 OT 2
Physics I 3-1-3½ SC 2	Physics II 2-0-2 SC 4	CAD 0-2-1 ES 4	Physics III 2-2-3 SC 6	Electrical Engineering I 2-2-3 EE 1	Electrical Engineering II 2-2-3 EE 2	Engineering Economics 1-0-1 OT 1	Senior Seminar 2-0-0
Programming & Applications 2-1-2½ ES 1	Statics 3-0-3 ES 2	Thermo- dynamics 3-0-3 ES 5	Fluid Mechanics 3-0-3 ES 7		Ship Design I 1-4-3 SD 1	Ship Design II 2-4-4 SD 2	Ship Design III 1-4-3 SD 3
Introduction to Naval Architecture 1-3-3 NA 1	Science Lab 0-2-1 SC 5	Ship Statics 2-2-3 NA 2		Ship Resistance & Propulsion 2-2-3 NA 3	Ship Structures 2-2-3 NA 4	Ship Dynamics 3-0-3 NA 5	Advanced Computational Tools for NAs 3-0-3 NA 6
	Intro to Mar Engineering Systems 1-2-2 ME 1	Mar Eng System Components 2-2-3 ME 2	Mar Eng Machinery Design 3-0-3 ME 3	Mar Eng Applied Thermo 3-0-3 ME 4	Ship Auxiliary Systems 4-0-4 ME 5	Ship Propulsion Systems 4-2-5 ME 6	Marine Transportation 3-0-3 NA 7
20/18	20/18	22/19	19/18	21/19	23/18½	24/18½	24/17

▲ Ship/Boat Yard Trades Internship

▲ Cadet/Observer Aboard Ship Internship

▲ Marine Industry Internship (Juniors)

▲ Marine Industry Internship (Seniors)

***Students in the fall semester of their sophomore year will have an opportunity to participate in a foreign exchange program with the University of Southampton, England. Two or three students will be able to take part in this program and selection will take place in the spring semester of their freshman year. Exchange students will have to schedule their sophomore winter work requirement onboard ship for the summer prior to the start of junior year.