Mechanical Engineering

Bachelor of Science (BS.ENGM)

Core Requirements				Credits
College Sem.		Quest for Meaning	CSEM 100	3
Communication & Creative Expression		Writing	ENGL 110†	3
		Oral Communication	COMM 101	3
		Literature	ENGL 140-149	3
		The Arts	ARTS 100-149	3
Citizenship		History	HIST 100-149	3
		Intercultural	FREN/GERM/SPAN 100-level or Study Abroad††	3
		Global Connections	ECON 150-199; GEOG 150-199; HIST 150-199; PS 150-199; SOC 150-199	3
Quantitative & Scientific Reasoning	SBM	Quantitative Reasoning	MATH 120† or higher level	-
	SBM	Scientific Endeavor	NSCI 100	-
	SBM	Science in Context	NSCI 171-199	-
		Human Beh. & Soc. Inst	ECON 111, 112; GEOG 101, 102; PS 101, PSYC 101, SOC 101	3
Wisdom, Faith, & the Good Life		Introduction to Phil.	PHIL 101	3
		Phil. Investigations	PHIL 170-199	3
		Theology & Wisdom	THEO 150-159	3
		Theology & the Good Life	THEO 160-169	3
			Total Core Credits	**39**

Notes/Instructions

†A student may be required to take ENGL 105 and/or MATH 100 based on placement exams administered prior to their first semester at King's College. ENGL 105 and MATH 100 are 3-credit courses and will count as free electives.

†† The Intercultural Competence requirement can be satisfied by taking a 100-level language class for 3 credits or participating in an approved Study Abroad experience. (See college catalog for more information)

SBM = Satisfied By Major requirement(s) and credit(s) listed below.

Mathematics & Science Requirements	Credits
PHYS 113[CR,2] Physics for Sc & Eng I	3
PHYS 113L Phy for Sc & Eng I Lab	1
PHYS 114[PR] Physics for Sc & Eng II	3
PHYS 114L[PR] Phy for Sc & Eng II Lab	1
CHEM 113[2] Gen. Chem. I	3
CHEM 113L Gen. Chem. I Lab	1
CHEM 114[PR] Gen. Chem. II	3
CHEM 114L[PR] Gen. Chem. II Lab	1
MATH 129 Calculus I	4
MATH 130[PR] Calculus II	4
MATH 231[PR] Calculus III	4
MATH 237[PR] Math Meth. for Phys. Sci.	3
MATH 238[PR] Differential Equations	3
Other Requirements	
HCE 101 Holy Cross Experience	1
Total Mathematics & Science & Other Credits	**35**

Mechanical Engineering Requirements	Credits
PHYS 241[PR] Statics	3
PHYS 242[PR] Mechanics of Solids	3
ENGR 150 Engineering Seminar	2
ENGR 250[PR] System Design & Analysis	3
ENGR 250L[PR] Sys Design & Analysis Lab	1
ENGR 300 Programming for Science & Engineering	3
ENGR 300L Programming for Science & Eng Lab	1
ENGR 350[PR] Engineering Materials	3
ENGR 350L[PR] Engineering Materials Lab	.5
ENGR 360[PR] Probability & Eng Statistics	3
ME 200[PR] Introduction to Mechanical Engineering	3
ME 200L[PR] Intro to Mechanical Engineering Lab	.5
ME 250[PR] Thermodynamics	3
ME 320[PR] Manufacturing Systems	3
ME 320L[PR] Manufacturing Systems Lab	1
ME 340[PR] Dynamics	3
ME 350[PR] Fluid Mechanics	3
ME 350L[PR] Fluid Mechanics Lab	.5
ME 360[PR] Heat Transfer	3
ME 360L[PR] Heat Transfer Lab	1
ME 380[PR] Mechatronics	3
ME 380L[PR] Mechatronics Lab	1
ME 400[PR] Mechanical Design	3
ME 400L[PR]Mechanical Design Lab	1
ME 410 Special Topics in Mechanical Engineering	3
or	
ME 499[PR] Mechanical Engineering Internship	3
ME 420[PR] System Dynamics	3
ME 420L[PR] System Dynamics Lab	1
ME 441[PR] Capstone Design I	3
ME 441L[PR] Capstone Design I Lab	1
ME 442[PR] Capstone Design II	3
ME 442L[PR] Capstone Design II Lab	1
Total Mechanical Engineering Credits	**66.5**

Total Credits Required for Graduation = 140.5

See reverse side for a suggested sequence

Effective 07/01/2025

Mechanical Engineering

Suggested Sequence

A suggested course sequence of degree requirements is listed below. Refer to the college catalog for course titles, descriptions, and prerequisites. Always consult your Academic Advisor when planning and scheduling your classes.

	Fall	Credits		Spring	Credits
	CHEM 113[2] General Chemistry I	3		CHEM 114[PR] General Chemistry II	3
	CHEM 113L General Chemistry I Lab	1		CHEM 114L[PR] General Chemistry II Lab	1
	PHYS 113[CR,2] Physics for Scientists & Engineers I	3		PHYS 114[PR] Physics for Scientists & Engineers II	3
	PHYS 113L Physics for Scientists & Eng I Lab	1		PHYS 114L[PR] Physics for Scientists & Eng II Lab	1
	MATH 129[2] Calculus I	4		MATH 130[PR] Calculus II	4
	ENGR 150 Engineering Seminar	2		Core Course[1]	3
	HCE 101 Holy Cross Experience	1		Core Course[1]	3
		15			**18***
	Summer	**Credits**			
	Fall	**Credits**		**Spring**	**Credits**
	ME 200[PR] Intro to Mechanical Engineering	3		ME 250[PR] Thermodynamics	3
	ME 200L[PR] Intro to Mechanical Engineering Lab	.5		ENGR 250[PR] System Design & Analysis	3
	MATH 231[PR] Calculus III	4		ENGR 250L[PR] System Design & Analysis Lab	1
	MATH 238[PR] Differential Equations	3		ENGR 350[PR] Engineering Materials	3
	PHYS 241[PR] Statics	3		ENGR 350L[PR] Engineering Materials Lab	.5
	Core Course[1]	3		PHYS 242[PR] Mechanics of Solids	3
				Core Course[1]	3
				Core Course[1]	3
		16.5			**19.5***
	Summer	**Credits**			
	Fall	**Credits**		**Spring**	**Credits**
	ME 320[PR] Manufacturing Systems	3		ME 360[PR] Heat Transfer	3
	ME 320L[PR] Manufacturing Systems Lab	1		ME 360L[PR] Heat Transfer Lab	1
	ME 340[PR] Dynamics	3		ME 400[PR] Mechanical Design	3
	ME 350[PR] Fluid Mechanics	3		ME 400L[PR] Mechanical Design Lab	1
	ME 350L[PR] Fluid Mechanics Lab	.5		ENGR 360[PR] Probability & Eng Statistics	3
	ENGR 300 Programming for Science & Engineering	3		MATH 237[PR] Math Meth. for Phys. Sciences	3
	ENGR 300L Programming for Science & Eng Lab	1		Core Course[1]	3
	Core Course[1]	3		Core Course[1]	3
		17.5			**20***
	Summer	**Credits**			
	Fall	**Credits**		**Spring**	**Credits**
	ME 380[PR] Mechatronics	3		ME 420[PR] System Dynamics	3
	ME 380L[PR] Mechatronics Lab	1		ME 420L[PR] System Dynamics Lab	1
	ME 441[PR] Capstone Design I	3		ME 442[PR] Capstone Design II	3
	ME 441L[PR] Capstone Design I Lab	1		ME 442L[PR] Capstone Design II Lab	1
	ME 410 Special Topics in ME[3] **OR** Core Course[1]	3		ME 410 Special Topics in ME[3] **OR** Core Course[1]	3
	Core Course[1]	3		Core Course[1]	3
	Core Course[1]	3		Core Course[1]	3
		17*			**17***

Total Credits Required for Graduation = 140.5

NOTES:

* Students are encouraged to take a summer course to relieve the credit load during this semester

[1]Choose one course from each of the Core Requirements listed on the reverse side.

[2] Course may satisfy both a Major and a Core requirement. CHEM 113 and PHYS 113 will satisfy the Scientific Endeavor and Science in Context Core requirements, MATH 129 will satisfy the Quantitative Reasoning Core requirement.

[3] ME 499 Mechanical Engineering Internship may substitute for ME 410 Special Topics in Mechanical Engineering

[PR] Course has a prerequisite – check college catalog.

[CR] Course has a co-requisite – check college catalog.