Computer Science – Computer Engineering Track
3+2 Engineering Dual Degree Program with Notre Dame
Bachelor of Science (BS.CS(ENGR))

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	(3)
	SBM	Scientific Endeavor	NSCI 100	(3)
	SBM	Science in Context	NSCI 171-199	(3)
		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[3]	PHIL 170-199; MSB 287[3]	(3)
		Theology & Wisdom	THEO 150-159	(3)
		Theology & the Good Life	THEO 160-169	(3)

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.

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

(3) To satisfy the King's Core requirements, a student will need to complete seven (7) Core requirements at Notre Dame.

Total Core Credits taken at King's 18

King's Major Requirements

	Credits
CS 112 Intro. to Programming	3
CS 120 OO Software Development	3
CS 120 OO Software Development Lab	1
CS 232 Data Structures	3
CS 232L Data Structures Lab	1
CS 233 Adv. Data Structures	3
CS 233L Adv. Data Structures Lab	1
CS256 Database Management	3
CS 256L Database Management Lab	1
CS 270 Computer Organization	3
CS 270L Computer Organization Lab	1
CS 315 Programming Paradigms	3
CS 364 Operating Systems	3
CS 480 Software Engineering	-
CS Elective (5 courses total)	-
MATH 127 Logic & Axiomatics	3
MATH 129 Calculus I	4
MATH 130 Calculus II	4
MATH 231 Calculus III	4
MATH 235 Discrete Mathematics	3
MATH 250 Linear Algebra	4
MATH 361 Probability & Statistics I	3
CHEM 113 Gen. Chem. I	3
CHEM 113L Gen. Chem. I Lab	1
CHEM 114 Gen. Chem. II	3
CHEM 114L Gen. Chem. II Lab	1
PHYS 113 Physics for Sci. & Eng. I	3
PHYS 113L Phys. for Sci./Eng. I Lab	1
PHYS 114 Physics for Sci. & Eng. II	3
PHYS 114L Phys.for Sci./Eng.II Lab	1
PHYS 233 Electronics I	3
PHYS 233L Electronics I Lab	1
ENGR 150 Engineering Seminar	2
ENGR 250 System Design & Analysis	3
ENGR 250L Syst. Design & Analysis Lab	1

Other Requirements

	Credits
HCE 101 Holy Cross Experience	1

Total King's Major and Other Credits 81

Notre Dame's Major Requirements

	Credits
CSE 20110 Discrete Mathematics	-
CSE 20311 Fund of Computing	-
CSE 20221 Logic Design	-
CSE 20289 Systems Programming	3
CSE 30321 Computer Architecture	4
CSE 20312 Data Structures	-
CSE 30341 Operating Systems	-
CSE 40175 Ethical & Social Issues	3
CSE 40522 CPEG Capstone Design	4
CSE Elective	3
CSE Elective	3
CSE Elective	3
CSE Elective	-
CSE/Technical/Free Elective	3
CSE/Technical/Free Elective	3
EE 20224 Intr to Electric Circuit Analysis	-
EE 20225 Intro to Electrical Engineering	-
EE 20234 Electric Circuits	3
EE 20242 Electronics	4
EE 30344 Signals & Systems I	3
ACMS 30440 Probability & Statistics	-
A&L Course (King's Core Course)	3
A&L Course (King's Core Course)	3
A&L Course (King's Core Course)	3
A&L Course (King's Core Course)	3
A&L Course (King's Core Course)	3
A&L Course (King's Core Course)	3
A&L Course (King's Core Course)	3

Total Notre Dame Credits 60

General Information

The 3-2 engineering program is a dual degree program. Students spend 3 years at King's College (King's) taking math, science and CORE courses and then transfer to Notre Dame (ND) for 2 years, focusing on engineering courses in their chosen field. Upon successful completion of the program at Notre Dame, students will receive *both* a B.S. in Computer Science from King's and a B.S. in Computer Engineering from Notre Dame. *(For more information, refer to the college catalog.)*

Total Credits required for Graduation = 159

Computer Science – Computer Engineering Track
3+2 Dual Degree Engineering Program with Notre Dame
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.

King's College

Fall 2019	Credits	Spring 2020	Credits
CS 112 Intro. to Programming *(fall only)*	3	CS 120 OO Software Development *(spring only)*	3
MATH 129[2] Calculus I	4	CS 120L OO Software Devel. Lab *(spring only)*	1
PHYS 113[2,CR] Physics for Scientists & Engineers I	3	MATH 130 Calculus II	4
PHYS 113L Physics for Sci. & Eng. I Lab	1	PHYS 114 Physics for Scientists & Engineers II	3
Core Course[1]	3	PHYS 114L Physics for Sci. & Eng. II Lab	1
HCE 101 Holy Cross Experience	1	ENGR 150 Engineering Seminar	2
		Core Course[1]	3
	15		**17**

Fall 2020	Credits	Spring 2021	Credits
CS 232 Data Structures	3	CS 233 Adv. Data Structures	3
CS 232L Data Structures Lab	1	CS 233L Adv. Data Structures Lab	1
CS 256 Database Management Systems	3	CS 270 Computer Organization	3
CS 256L Database Management Systems Lab	1	CS 270L Computer Organization Lab	1
MATH 127 Logic & Axiomatics	3	MATH 250 Linear Algebra	4
MATH 231 Calculus III	4	ENGR 250 System Design & Analysis	3
Core Course[1]	3	ENGR 250L Syst. Design & Analysis Lab	1
	18*		**16**

Fall 2021	Credits	Spring 2022	Credits
CS 364 Operating Systems	3	CS 315 Programming Paradigms	3
MATH 235 Discrete Mathematics	3	CHEM 114 Gen. Chem. II	3
MATH 361 Probability & Statistics I	3	CHEM 114L Gen. Chem. II Lab	1
CHEM 113 Gen. Chem. I	3	PHYS 233 Electronics I	3
CHEM 113L Gen. Chem. I Lab	1	PHYS 233L Electronics I Lab	1
Core Course[1]	3	Core Course[1]	3
		Core Course[1]	3
	16		**17**

Notre Dame

Fall 2022	Credits	Spring 2023	Credits
CSE 30321 Computer Architecture	4	CSE 20289 Systems Programming	3
EE 20234 Electric Circuits	3	CSE Elective	3
EE 30344 Signals & Systems I	3	EE 20242 Electronics	4
A&L Course (King's Core Course[1])	3	A&L Course (King's Core Course[1])	3
A&L Course (King's Core Course[1])	3	A&L Course (King's Core Course[1])	3
	16		**16**

Fall 2023	Credits	Spring 2024	Credits
CSE Elective	3	CSE 40175 Ethics & Professional Issues	3
CSE Elective	3	CSE 40522 CPEG Capstone Design	4
CSE Elective/Technical/Free Elective	3	CSE/Technical /Free Elective	3
A&L Course (King's Core Course[1])	3	A&L Course (King's Core Course[1])	3
A&L Course (King's Core Course[1])	3		
	15		**13**

Total Credits Required for Graduation = 159

Notes:
CS 112 and 120 satisfy the Notre Dame requirement for CSE 20311 Fund of Computing
CS 270/L satisfies the Notre Dame requirement for CSE 20221 Logic Design
CS 232/L and CS 233/L satisfy the Notre Dame requirement for CSE 20312 Data Structures
CS 364 satisfies the Notre Dame Requirement for CSE 30341 Operating Systems
CS 315 satisfies one of the Notre Dame CSE Electives
PHYS 233/L satisfies the Notre Dame requirement for EE 20224 Introduction to Electric Circuit Analysis and EE 20225 Introduction to Electrical Engineering
MATH 235 satisfies the Notre Dame requirement for CSE 20110 Discrete Mathematics
MATH 361 satisfies the Notre Dame requirement for ACMS 30440 Probability & Statistics
CS 480 required by King's is satisfied with CSE 40522 CPEG Capstone Design
The (5) CS Electives required by King's are satisfied by any other of the 30000 or 40000 level CSE courses taken at Notre Dame.
[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 CHEM 114 will satisfy the Scientific Endeavor and Science in Context Core requirements. MATH 129 will satisfy the Quantitative Reasoning Core requirement.
[PR] Course has a prerequisite – check college catalog.
[CR] Course has a co-requisite – check college catalog.