

COMPUTER SCIENCE – COMPUTER ENGINEERING TRACK

3+2 ENGINEERING DUAL DEGREE PROGRAM WITH NOTRE DAME (BS.CS(ENGR))

COURSE REQUIREMENTS

CORE Requirements	Credits	King's Requirements	Credits	Notre Dame Requirements	Credits
CORE 090 First Year Exp.	1	CS 112 Intro. to Programming	3	CSE 20110 Discrete Mathematics	-
CORE 100 Liberal Arts Sem.	3	CS 120 OO Software Development	3	CSE 20211 Fund of Computing I	-
CORE 110 Effective Writing	3	CS 120 OO Software Development Lab	1	CSE 20212 Fund of Computing II	-
CORE 115 or 116 Oral Comm.	3	CS 232 Data Structures	3	CSE 20221 Logic Design	-
CORE 131 or 133 Civilization	3	CS 232L Data Structures Lab	1	CSE 20189 Basic Unix for Engineers	3
CORE 140 or 141-145 Forgn.	3	CS 233 Adv. Data Structures	3	CSE 30321 Computer Architecture I	4
CORE 150-159 Soc. Sci. ¹	3	CS 233L Adv. Data Structures Lab	1	CSE 30331 Data Structures	-
CORE 160-169 Literature	(3)	CS256 Database Management	3	CSE 30341 Operating Systems	-
CORE 170-179 The Arts	(3)	CS 256L Database Management Lab	1	CSE 40175 Ethical & Social Issues	3
CORE 180-189 Amer. Studies ¹	(3)	CS 270 Computer Organization	3	CSE 40522 CPEG Capstone Design	4
CORE 190-199 Global Studies ¹	(3)	CS 270L Computer Organization Lab	1	CSE Elective	3
CORE 250-259 Syst. Theology	(3)	CS 315 Programming Paradigms	3	CSE Elective	3
CORE 260-269 Mor. Theology	(3)	CS 364 Operating Systems	3	CSE Elective	3
CORE 280 Philosophy I	(3)	CS 480 Software Engineering	-	CSE Elective	-
CORE 281-289 Philosophy II	(3)	CS Elective (5 courses total)	-	CSE/Technical/Free Elective	3
A student will need to complete seven (7) of King's College CORE requirements at Notre Dame		MATH 127 Logic & Axiomatics	3	CSE/Technical/Free Elective	3
		MATH 129 Calculus I	4	EE 20224 Intr to Electric Circuit Analysis	-
		MATH 130 Calculus II	4	EE 20225 Intro to Electrical Engineering	-
		MATH 231 Calculus III	4	EE 20234 Electric Circuits	3
		MATH 235 Discrete Mathematics	3	EE 20242 Electronics	4
		MATH 250 Linear Algebra	4	EE 30344 Signals & Systems I	3
		MATH 361 Probability & Statistics I	3	ACMS 30440 Probability & Statistics	-
		CHEM 113 Gen. Chem. I	3	A&L Course (King's CORE)	3
		CHEM 113L Gen. Chem. I Lab	1	A&L Course (King's CORE)	3
		CHEM 114 Gen. Chem. II	3	A&L Course (King's CORE)	3
		CHEM 114L Gen. Chem. II Lab	1	A&L Course (King's CORE)	3
		PHYS 113 Physics for Sci. & Eng. I	3	A&L Course (King's CORE)	3
		PHYS 113L Phys. for Sci./Eng. I Lab	1	A&L Course (King's CORE)	3
		PHYS 114 Physics for Sci. & Eng. II	3	A&L Course (King's CORE)	3
		PHYS 114L Phys.for Sci./Eng.II Lab	1	A&L Course (King's CORE)	3
		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		
	19		80		63

Total Credits = 162

Note: CS 112 and 120 satisfy the Notre Dame requirement for CSE 20211 Fund of Computing I and CSE 20212 Fund of Computing II
 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 30331 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.

¹Students are required to take CORE 150, CORE 180 **OR** CORE 190 to fulfill the Interdisciplinary CORE requirement.

- If a student takes CORE 150, then he/she should choose from 181 – 188 to fulfill the 18x requirement AND from 191 – 198 to fulfill the 19x requirement.
- If a student takes CORE 180, then he/she should choose from 151 – 158 to fulfill the 15x requirement AND from 191 – 198 to fulfill the 19x requirement.
- If a student takes CORE 190, then he/she should choose from 151 – 158 to fulfill the 15x requirement AND from 181 – 188 to fulfill the 18x requirement.

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. Admission into Notre Dame requires a minimum GPA of 3.30 after 5 semesters of college study. Students must earn at least 60 credits from ND to receive the ND degree. 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).

COMPUTER SCIENCE – COMPUTER ENGINEERING TRACK

3+2 DUAL DEGREE ENGINEERING PROGRAM WITH NOTRE DAME

SUGGESTED SEQUENCE

- Use the information below as a guide when selecting courses.
- Refer to the reverse side when selecting major courses, major electives, core courses, and free electives when applicable.
- Consult your Academic Advisor prior to course registration.
- Refer to the King's College Catalog and/or website for course titles and descriptions.
- Choose one course from each CORE category as listed on the reverse side.
 - CORE courses may be taken in any order approved by the academic advisor with the following conditions:
 - CORE 100 and CORE 110 should be taken in the first year.
 - CORE 115 (or 116) should be taken within the first two years.
 - For students selecting a Foreign Language (CORE 14x), every effort should be made to register for that language in the first available semester at King's.

King's College					
1st Year - Fall		cr.	1st Year - Spring		cr.
CS 112 Intro. to Programming (<i>fall only</i>)		3	CS 120 OO Software Development (<i>spring only</i>)		3
MATH 129 Calculus I		4	CS 120L OO Software Devel. Lab (<i>spring only</i>)		1
PHYS 113 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		3	PHYS 114L Physics for Sci. & Eng. II Lab		1
CORE 090 First Year Experience		1	ENGR 150 Engineering Seminar		2
			CORE		3
		15			17
2nd Year - Fall			2nd Year - Spring		
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		3	ENGR 250L Syst. Design & Analysis Lab		1
		18*			16
3rd Year - Fall			3rd Year - Spring		
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		3	CORE		3
			CORE		3
		16			17
Notre Dame					
4th Year - Fall			4th Year - Spring		
CSE 30321 Computer Architecture I		4	CSE 20189 Basic Unix for Engineers		3
EE 20234 Electronic Circuits		3	CSE Elective		3
EE 30344 Signals & Systems		3	EE 20242 Electronics		4
A&L Course (King's CORE)		3	A&L Course (King's CORE)		3
A&L Course (King's CORE)		3	A&L Course (King's CORE)		3
		16			16
5th Year - Fall			5th Year - Spring		
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)		3	A&L Course (King's CORE)		3
A&L Course (King's CORE)		3	A&L Course (King's CORE)		3
		15			16

* The standard semester course load is five courses consisting of 15 – 17 credits. A student may take 18 credits if the science lab puts them over 17 credits. (*for more information about credit loads, please see the college catalog*)