

(For students admitted in 2021-22 under the 4-year degree)

BSc in Integrative Systems and Design

In addition to the requirements of their major programs, students are required to complete the University requirements for graduation. For details please refer to the respective section on this website.

Some courses can be used to fulfill both Major and University Common Core Requirements. Students may reuse a maximum of 9 credits of these courses to count towards both Requirements.

Students may use no more than 6 credits earned from courses offered in self-paced online delivery mode to satisfy the graduation requirements of a degree program. This 6-credit limit does not apply to credits obtained through the credit transfer procedures of the University.

For students graduating with an additional major, they must take all the requirements specified for that major, within which they must complete at least 20 single-counted credits. These 20 credits cannot be used to fulfill any other requirements for graduation except for the 120-credit degree requirement.

Major Requirements

Required Course(s)

			Credit(s) attained
ISDN	1002	Redefining Problems for the Real Needs	3
ISDN	1004	Sketching	1
ISDN	1006	Human-centered Innovation	3
ISDN	2001	Second Year Design Project I	1
ISDN	2002	Second Year Design Project II	4
ISDN	2200	Systems Thinking and Design	3
ISDN	2300	Introduction to 3D Design	3
ISDN	2400	Physical Prototyping	3
ISDN	3001	Third Year Design Project I	4
ISDN	3002	Third Year Design Project II	4
ISDN	4001	Final Year Design Project I	5
ISDN	4002	Final Year Design Project II	5
COMP		Note: COMP 1021 <u>OR</u> COMP 1022P <u>OR</u> COMP 2011 <u>OR</u> COMP 2012H	3-5
COMP	1021	Introduction to Computer Science	3
COMP	1022P	Introduction to Computing with Java	3
COMP	2011	Programming with C++	4
COMP	2012H	Honors Object-Oriented Programming and Data Structures	5
ENGG	1010	Academic Orientation	0
LANG	2030	Technical Communication I	3
LANG	4032	Technical Communication II for IEDA and ISDN	3

MATH		Note: [MATH 1012 <u>OR</u> MATH 1013 <u>OR</u> MATH 1023 <u>AND</u> (MATH 1014 <u>OR</u> MATH 1024)] <u>OR</u> [MATH 1020] (Subject to approval of the program office, MATH 1014/1024 may be replaced by a COMP course)	4-7
MATH	1012	Calculus IA	4
MATH	1013	Calculus IB	3
MATH	1014	Calculus II	3
MATH	1020	Accelerated Calculus	4
MATH	1023	Honors Calculus I	3
MATH	1024	Honors Calculus II	3
PHYS		Note: PHYS 1001 <u>OR</u> PHYS 1111 <u>OR</u> PHYS 1112 <u>OR</u> PHYS 1312	3
PHYS	1001	Physics and the Modern Society	3
PHYS	1111	General Physics I	3
PHYS	1112	General Physics I with Calculus	3
PHYS	1312	Honors General Physics I	3

Elective(s)

			Minimum credit(s) required
ISDN/ENGG/ IEDA		Design Electives (Courses from the specified elective list)	5
ISDN	2000	What is Design and Why Design?	3
ISDN	2500	Introduction to Systems Design Engineering	3
ISDN	3100	Design for Sustainability	2
ISDN	3200	Graphic Communication	2
ISDN	3300	Interaction Design	2
ISDN	4300	Materials Selection in Product Design	3
ISDN	4320	Design Thinking	3
ISDN	4330	Ergonomics in Design	2
ENGG	1300	Design Thinking for Health Innovation	3
IEDA	2150	Product Design	3
IEDA	4650	Engineering Psychology	3
ISDN/ENTR/ IEDA/SBM		Product Management and Entrepreneurship Electives (Courses from the specified elective list)	9
ISDN	3350	Global Product Development	3
ISDN	3360	From Product Innovations to Successful Technology Startups	3
ISDN	4200	Product Management	3
ENTR	3100	Industrial Landscape: Understanding the Elements to Start a Business	3
IEDA	4170**	Product Design and Lifecycle Management	3
FINA	2203	Fundamentals of Business Finance	3
ISOM	1380	Technology and Innovation: Social and Business Perspectives	3
ISOM	2030	Business Protections for Innovations	3
ISOM	2700	Operations Management	3
ISOM	4020	Innovation Management and Technology Entrepreneurship	3
MARK	2120	Marketing Management	3

ISDN	Project-related Electives (Courses from the specified elective list. Students should seek approval of their advisor for the choices of courses.)	22
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****Remarks on course(s):**

- IEDA 4170: The course was last offered in 2016-17 and was deleted subsequently.