

Curriculum of Study for Master of Integrated Innovation for Products & Services – Advanced Study and Integrated Study in Computer Science

Fall 2021: First Term

Required Course units: 54

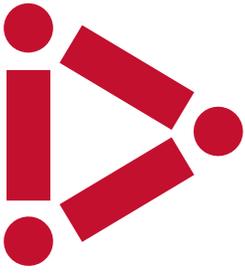
Minimum Units: 54

Maximum Units: 54

Curriculum Plan

Course #	Course Title	Semester	Units
Required Courses			
49-700*	Engineering Design Thinking and Practice	Mini 1	6
49-701*	Visual Communication for Innovators	Mini 1	6
49-702*	Business Management Thinking and Practice	Mini 1	6
49-703	Build Your New Career	Semester	6
49-704	Integrated Innovation Seminar & Workshop Series	Semester	0
49-710	Product Design Thinking and Practice	Mini 2	6
49-712	User Research: Theory, Methods, Practice	Mini 1	6
49-733	Designing Smart Systems	Mini 1	6
49-740	Integrated Product Development Methods	Mini 2	6
Required Computer Science Course			
15-513	Introduction to Computer Systems	Semester	12

* Students are required to complete two of these courses, 49-700, 49-701, 49-702. Assignment is based on undergraduate degree and/or work experience. These courses support the interdisciplinary goals of the degree program, rooted in engineering, design and business. If needed,



some students may be required to take all three courses if lacking appropriate background.

Spring 2022: Second Term

Required Course Units: 30

Minimum Units: 42

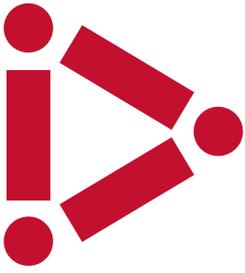
Maximum Units: 48

Course #	Course Title	Semester	Units
Required Courses			
49-704	Integrated Innovation Seminar & Workshop Series	Semester	0
49-726	Essential Skills for Leaders	Mini 4	6
49-720	Managing Products and Brands	Mini 3	6
49-730	Design for Manufacturing, Assembly, and Sustainability	Mini 3	6
Required Computer Science Course			
17-514	Principles of Software Construction	Semester	12
Elective Courses			
Various	Electives: Students have the ability to choose up to 24 units of electives	Varies	12-18

Summer 2022

Required Course Units: 3

Course #	Course Title	Semester	Units
49-746	Integrated Innovation Institute Internship/Practica	Semester	3



Fall 2022: Third Term

Required Course Units: 48

Minimum Units: 48

Maximum Units: 54

Course #	Course Title	Semester	Units
Required Courses			
49-713	Prototyping for the Internet of Things	Mini 2	6
49-747	Innovation Mindset in Practice	Semester	12
49-725	Business Models & Strategy	Mini 2	6
SCS Required Electives			
15-xxx	SCS Electives: Students must take 24 units of SCS electives	Semester	24
Elective Courses			
Various	Electives: Students have the ability to choose one 6 unit elective in Mini 1	Mini 1	6

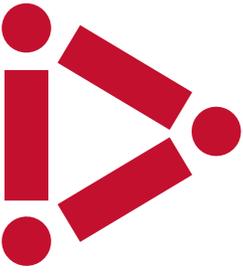
Spring 2023: Fourth Term

Required Course Units: 24

Minimum Units: 36

Maximum Units: 48

Course #	Course Title	Semester	Units
Required Courses			
49-741	Integrated Product Development Capstone	Semester	12
SCS Required Electives			
15-xxx	SCS Electives: Students must take at least 12 units of SCS electives; 24 is the max.	Semester	12-24



Elective Courses			
Various	Electives: Students have the ability to choose 12 units of electives	Various	12

Curriculum Requirements

- The MIIPS Advanced Study and Integrated Study in Computer Science curriculum requires students to complete a minimum of 201 units of course work over four semesters and a summer internship.
 - Students must maintain full-time status (minimum of 36 units) during four semesters: fall term one, spring term two, fall term three, and spring term four.
- Students must complete at least 42 units of electives relevant to the product development process and must be approved by their academic advisor. This includes 12 units of electives completed within the Integrated Innovation Institute (49-xxx).
- In order to work with industry sponsors during in the degree-required [Integrated Product Development capstone course](#), signing contractual terms regarding intellectual property and non-disclosure agreements may be required to complete the course project.
- All coursework must be completed with graduate level courses.
- Students must have a minimum QPA of 3.0 to graduate.

For additional details regarding degree requirements, review the full iii Student Handbook

All degree course plans are reviewed and updated annually during the spring semester. If you have any questions regarding updates, please email: iii@cmu.edu.

Last Updated: 04/21/2021