



Course Title: Product Management for the Internet of Things
Course Code: BUS 145
Instructor: Daniel Elizalde

Course Summary:

This introductory course provides a practical guide to Product Management for IoT products. You will get familiar with the IoT technology stack, and will get hands-on experience using a framework for making IoT product strategy decisions. Through this framework, you'll learn a structured way to evaluate and make trade-offs in the areas of business, technology, data, user experience, security, and industry regulation.

Classes will combine lectures, interactive exercises using real-world examples, and hands-on group projects in which students will work in teams to develop a strategy and product plan for an IoT product of their choice.

Although this course is geared toward practicing Product Managers, students with related backgrounds such as Engineering, Design, Marketing, or Business will also find this course extremely useful.

**Please see course page for full description and additional details.*

Grade Options and Requirements:

- Letter Grade (A, B, C, D, No Pass)
 - *All assignments will be graded on a completed / not completed basis*
 - Attendance 50%
 - Final presentation 50%
- Credit/No Credit (CR/NC)
 - A passing grade (for "Credit") = attendance of at least 6 classes
- No Grade Requested (NGR)
 - This is the default option. No work will be required; no credit shall be received; no proof of attendance can be provided.

**Please Note: If you require proof that you completed a Continuing Studies course for any reason (for example, employer reimbursement), you must choose either the Letter Grade or Credit/No Credit option. Courses taken for NGR will not appear on official transcripts or grade reports.*

Please contact the Stanford Continuing Studies office with any questions
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Tentative Weekly Outline:

Classes will combine lectures, interactive exercises, and hands-on team projects.

Week 1: Introduction

- Welcome and introductions
- The IoT landscape
- Key applications across industries
- Introduction to the IoT technology stack and the IoT Decision Framework
- Form project teams

Week 2: IoT User Experience (UX)

- Understanding your target users and their needs at each layer of the [IoT technology stack](#)
- Identifying IoT Personas (internal and external) across the customer lifecycle
- Work on team project in-class: UX decisions

Week 3: IoT & Big Data

- How data flows through the IoT technology stack
- Sources of data
- Integration with 3rd party systems
- APIs
- Analytics
- Work on team project in-class: Data decisions

Week 4: The Business of IoT

- Business models
- The IoT value chain
- Build vs. buy across the IoT technology stack
- Calculating cost across the IoT technology stack
- Work on team project in-class: Business decisions

Week 5: The Technology of IoT

- Devices and sensors
- Embedded software
- Communications
- Cloud platforms
- Applications (internal and customer-facing)
- Work on team project in-class: Technology decisions

Week 6: IoT Security and Standards & Regulations

IoT Security:

- Security challenges in IoT
- Physical security
- Cybersecurity
- Culture of security in your company
- Work on team project in-class: Security decisions

Standards & Regulations:

- Examples of technology and industry standards
- Examples of regulations
- Impact of standards & regulations on an IoT solution
- Work on team project in-class: Standards & Regulations decisions

Week 7 & 8: Team Presentations

- Each team presents highlights from their framework and product plan