

MASTER OF SCIENCE PRODUCT INNOVATION (64 units)

The Master of Science in Product Innovation addresses the 21st-century need for advanced, cross-disciplinary knowledge and skills across the product development landscape. Building on a foundation that explores new paradigms for physical, virtual, and hybrid product design, students are able to tailor their degree to develop design specializations that range from physical objects, to digital and interactive systems and experiences, to unique offerings that require knowledge and experience across multiple realms. Applied techniques and methodologies are augmented at each level of the degree with specially crafted courses that provide essential theoretical and cultural context for advanced work, and by modules and courses covering critical elements of product venture development, including strategies for launch, management, and growth. Utilizing the Academy's network of leading industry partners, a strong emphasis is placed on collaborations between student teams and select companies and institutions, and other opportunities that provide real-world challenges for enhanced learning.

PROGRAM REQUIREMENTS

At least 64 units, including 52 in the Core and 12 units of Electives.

CORE COURSES (52 UNITS)

- PRIN 501 The Creator's Mindset (4 units)
- PRIN 502 History and Theory of Product Innovation (2 units)
- PRIN 503 Principles of Human Centered Design (2 units)
- PRIN 504 Aesthetics of Form I (4 units)
- PRIN 505 Aesthetics of Form II (4 units)
- PRIN 510 Foundation Studio (4 units)
- PRIN 515 Maker Foundation I (2 units)
- PRIN 516 Maker Foundation II (2 units)
- PRIN 520 Creator's Studio (min. 4 units, max 12)
- PRIN 525 Physical Maker Lab (min. 2 units, no max)
- PRIN 526 Virtual Maker Lab (min. 2 units, no max)
- PRIN 530 Business Essentials for Product Innovators (4 units)
- PRIN 531 Product Venture Design and Foresight (4 units)
- PRIN 532 Leading Product Enterprises (4 units)

PRIN 535 Entrepreneur Lab (min. 2 units, no max)

PRIN 550 Industry Lab (min. 2 units, no max)

PRIN 575a The Garage Experience I (2 units)

PRIN 575b The Garage Experience II (2 units)

ELECTIVES (take a minimum of 12 units from the following)

PRIN 525 Physical Maker Lab (2, no max.)

PRIN 526 Virtual Maker Lab (2, no max.)

PRIN 535 Entrepreneur Lab (2, no max.)

PRIN 550 Industry Lab (2, no max)

PRIN 590 Directed Research (1-4 units)

Additional courses within the Iovine and Young Academy or other departments and schools at USC are eligible for elective credit in the MS-PRIN degree based on advisement and approval by the Associate Dean for Admission and Student Affairs.

Advanced students may attempt to waive the PRIN 510, 515 and 516 course requirements through examination. Students who are successful at waiving foundation course requirements will be approved for appropriate course substitutions within the degree through student advisement.

PRIN COURSE DESCRIPTIONS

- PRIN 501 The Creator's Mindset**
In-depth exploration of the mindsets, personalities and social, cultural, and political factors that led to the world's greatest breakthroughs.
- PRIN 502 History and Theory of Product Design**
Covers milestones of product design, including game-changing concepts and processes that led to disruptive innovations and new enterprise opportunities.
- PRIN 503 Principles of Human Centered Design**
Advanced methods and techniques for applying human-centered design to the development and launch of products and enterprises. Includes workshop design and facilitation, co-creation, and synthesis.
- PRIN 504 Aesthetics of Form I**
In-depth look at what shapes our aesthetic values. Students gain facility in critical dialog, recognition and practice of aesthetic decisions across physical and virtual product platforms.
- PRIN 505 Aesthetics of Form II**
Through case studies and applied learning students gain advanced knowledge in consumer desirability and the functional aspects of virtual and physical form and aesthetic design.
- PRIN 515 Maker Foundation I**
Advanced visualization concepts, techniques, and tools used to communicate ideas, solve problems and enhance collaboration for product design and development.
- PRIN 516 Maker Foundation II**
Builds on skills and techniques learned in Maker Foundation I. Includes advanced explorations of digital design tools, including industry standard software.
- PRIN 530 Business Essentials for Product Innovators**
Foundational concepts, methodologies and techniques for developing and launching products and enterprises. Topics include product road-mapping, supply chain, market research, and user/consumer insight.
- PRIN 531 Venture Design and Foresight**
What if doing business was re-framed as a medium for design? Students uncover their ability to see and activate groundbreaking opportunities in new product development.

- PRIN 532 Leading Product Enterprises**
Advanced concepts, methodologies and techniques for developing and launching products and enterprises. Topics include organizational structure and culture, finance, and sustainable growth.
- PRIN 510 Foundation Studio**
An intensive look at the process of bringing a product from concept to market. Includes theory and applied techniques for both physical and virtual products.
- PRIN 520 Creator's Studio**
Research, ideation, design, development and fabrication of products. Covers applied principles of human centered design, blue ocean strategies, and product desirability, feasibility and viability.
- PRIN 525 Physical Maker Lab**
Selected topics covering making and fabrication of physical products. Examples include explorations of soft goods, hard goods, and products suitable for hybrid or unique applications.
- PRIN 526 Virtual Maker Lab**
Selected topics covering making and execution of virtual products. Examples include explorations of digital and interactive systems and experiences, and products suitable for hybrid or unique applications.
- PRIN 535 Entrepreneur Lab**
Selected topics covering development of products for new enterprises. Examples include product viability, enterprise models, talent acquisition and management, and legal considerations.
- PRIN 550 Industry Lab**
Practicum through which student teams serve as design strategists for industry collaborators, and learn advanced methods and processes to solve problems in collaborative, field-specific environments.
- PRIN 575a The Garage Experience I**
Academy capstone leading to innovative outcomes, including advanced research artifacts, operational prototypes, and breakthrough enterprises across multiple fields and industries.
- PRIN 575b The Garage Experience II**
Continuation of PRIN 575a. Students refine and perfect outcomes, leading to a pitch/presentation to faculty and industry experts for funding or validation, and critical networking.

PRIN 590 Directed Research

Individual research and readings.

PRIN 591 Individual Instruction

Weekly, individual instruction with an Academy professor for deep exploration and study within an Academy core discipline.

PRIN 599 Special Topics

Comprehensive exploration of particular aspects of product innovation.

SAMPLE SCHEDULE

Semester 1 (16 units):

PRIN 510 Foundation Studio (4 units)

PRIN 515 Maker Foundation I (2 units)

PRIN 516 Maker Foundation II (2 units)

PRIN 501 The Creator's Mindset (4 units)

PRIN 502 History and Theory of Product Innovation (2 units)

PRIN 503 Principles of Human Centered Design (2 units)

Semester 2 (16 units):

PRIN 520 Creator's Studio (4 units)

PRIN 525 Physical Maker Lab (2 units)

PRIN 526 Virtual Maker Lab (2 units)

PRIN 504 Aesthetics of Form I (4 units)

PRIN 530 Business Essentials for Product Innovators (4 units)

Semester 3 (16 units):

PRIN 550 Industry Lab (2 units)

PRIN 575a The Garage Experience I (2 units)

PRIN 505 Aesthetics of Form II (4 units)

PRIN 531 Product Venture Design and Foresight (4 units)

PRIN 535 Entrepreneur Lab (2 units)

Elective (2 units)

Semester 4 (16 units):

PRIN 575b The Garage Experience II (2 units)

PRIN 532 Leading Product Enterprises (4 units)

Electives (10 units)