INNO 221. Introduction to Arts and Design Principles. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Restricted to non-arts students enrolled in the Certificate in Product Innovation program. Introduces arts and design principles to students from non-arts disciplines.

INNO 223. Introduction to Business Principles. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Open only to non-business majors in the Certificate in Product Innovation program. Introduces business fundamentals to students from non-business disciplines. Particular focus will be concepts and issues in contemporary business.

INNO 225. Introduction to Engineering and Technology Principles. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Open only to non-engineering majors in Certificate in Product Innovation program. Introduces engineering and technology fundamentals to students from non-engineering disciplines. Particular focus is the engineering problem-solving process as applied to open-ended problems. Students will be introduced to the different types of engineering, examine engineering and technology issues and apply the engineering problem-solving process.

INNO 351. Creativity for Innovation and Entrepreneurship. 1 Hour.
Semester course; 1 lecture hour. 1 credit. Students are introduced to the role of creativity in innovation and entrepreneurship. A multidisciplinary orientation and approach are emphasized.

INNO 352. Making Innovation Happen. 1 Hour.
Semester course; 1 lecture hour. 1 credit. Students are introduced to the role of innovation in today’s society. A multidisciplinary orientation and approach are emphasized.

INNO 353. Making Entrepreneurship Happen. 1 Hour.
Semester course; 1 lecture hour. 1 credit. Students are introduced to the role of entrepreneurship in today’s society. A multidisciplinary orientation and approach are emphasized.

INNO 450. Realizing Innovation and Entrepreneurship. 1 Hour.
Semester course; 1 lecture hour. 1 credit. Students will learn how innovation and entrepreneurship are manifested in today’s society. A multidisciplinary orientation and approach are emphasized.

INNO 460. Product Innovation: da Vinci Project. 3 Hours.
Semester course; 3 credits. Prerequisite: permission of instructor. Students from the School of the Arts, School of Engineering and School of Business work together on a semester-long product innovation project with a corporate sponsor under faculty supervision. Topics and activities may include project management, team building, concept generation and testing, market analysis, visualization, and prototyping.

INNO 491. Special Topics in Product Innovation. 1-3 Hours.
Semester course; 1-3 lecture hours. 1-3 credits. May be repeated for a maximum of six credits. Enrollment is restricted to students with permission of adviser and da Vinci Center director. Study of current and emerging topics in the field of product innovation. Topics may vary from semester to semester.

INNO 492. Independent Study in Product Innovation. 1-3 Hours.
Semester course; 1-3 independent study hours. 1-3 credits. May be repeated for a maximum total of six credits by students pursuing a da Vinci Center certificate. Enrollment restricted to students with junior standing and permission of adviser and da Vinci Center director. Intensive study or research under supervision of a faculty member in an area not covered in depth or contained in the regular curriculum.

INNO 501. Arts Principles for Product Innovation. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: Open only to students enrolled in the Master of Product Innovation program or with approval of instructor. Introduces studio-based arts instruction to individuals with a background in business, engineering or other non-arts discipline. Lectures and assignments expose students to a broad range of skills and vocabulary, enabling them to comprehend, analyze and communicate visually. Working individually and in teams, the core experience will be formed through iterative making, via direct, hands-on material experience.

INNO 502. Business Principles for Product Innovation. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: Open only to students enrolled in the Master of Product Innovation program or with approval of instructor. Introduces business principles and concepts to non-business students. Topics cover the functions and activities organizations engage in to conduct commerce, including planning, marketing, accounting, operations, finance and human resource management. Project management, as used for developing innovative ideas and commercializing new goods and services, is the organizing structure used for integration of concepts.

INNO 503. Technology Principles for Product Innovation. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: Open only to students enrolled in the Master of Product Innovation program or with approval of instructor. Introduces technology and technological principles to students with non-engineering-related degrees. A particular focus is learning and applying a technology problem-solving process to different types of open-ended problems. The process includes the steps of needs identification, information gathering, idea generation, evaluation and selection.

INNO 590. da Vinci Project. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: Open only to students enrolled in the Master of Product Innovation program. Students will engage in an interdisciplinary product innovation project with a corporate sponsor under faculty supervision. Topics and activities will hone product innovation skills, including project management, team building, concept generation and testing, market analysis, visualization, and prototyping.
INNO 600. Integrative Design Studio. 3 Hours.
Semester course; 3 lecture hours. 3 credits. Prerequisite: Open only to students enrolled in the Master of Product Innovation program. Integrates the theory and practice of product innovation across the arts, business and engineering disciplines. Students are exposed to and apply a broad set of skills and tools to aid in understanding, envisioning and communicating product innovation. Working in interdisciplinary teams, students will hone teamworking skills and collectively address contemporary issues associated with product innovation, such as sustainability.

INNO 651. Master's Project in Product Innovation I. 6 Hours.
Semester course; 2 lecture and 4 laboratory hours. 6 credits. Prerequisites: two of INNO 501, 502 and 503; and INNO 590 and 600. This capstone experience requires that an interdisciplinary team engage in various facets of a real product development initiative. The project may be company-sponsored or an approved student-originated effort. Applying arts, business and engineering skill sets gained from previous course work, students will identify a potential opportunity and conceive viable product concepts to be pursued across the three project stages of concept generation, concept development and refinement and concept finalization. The semester will culminate with each team producing a set of prototypes and initial business cases for preferable concepts, with at least one viable concept supported by a viable business case an expected class deliverable. Graded as S/U/F.

INNO 652. Master's Project in Product Innovation II. 6 Hours.
Semester course; 2 lecture and 4 laboratory hours. 6 credits. Prerequisite: INNO 651. This is the second course of the capstone experience. An interdisciplinary team will continue engaging in the facets of a company-sponsored or student-originated product development initiative begun in INNO 651. Applying arts, business and engineering skill sets gained from previous course work, students will further develop viable concepts and culminate the capstone experience with the proposal of at least one well-detailed, functional product prototype accompanied by a formal business plan. Students will participate in three project stages: prototype and business case incubation, working prototype and business plan development, and commercialization. Graded as S/U/F.

INNO 691. Topics in Product Innovation. 1-3 Hours.
Semester course; 1-3 lecture hours. 1-3 credits. May be repeated for a maximum of six credits. Study of current and emerging topics in the field of product innovation. Topics may vary by semester. See the Schedule of Classes for offerings each semester.

INNO 697. Guided Study in Product Innovation. 1-3 Hours.
Semester course; 1-3 independent study hours. 1-3 credits. May be repeated for a maximum of six credits. Students in the M.P.I. program who wish to do research on problems in the area of product innovation will submit a detailed outline of their problem. They will structure a research study, undertake this study and prepare a written report on the problem. Approval of proposed work is required by the program director.