

Facilities Management Program: Course Descriptions

Core Courses

Fall/Summer

ARPL 571: **The Facilities Management Context** (1.00 Credits) – Provides an overview of facilities management and its challenges, the history of the profession, professional associations, and career opportunities. Prerequisite: None.

ARPL 671: **Creative Problem Solving** (2.00 Credits) – Explores the design process as a creative, focused, strategic, and holistic way to respond to challenges. Students learn to break out of conventional thinking while working within constraints. The course makes heavy use of right- and left-brain exercises and graphic forms of communication. Prerequisite: None.)

ARPL 673: **Project and Practice Management for FM** (3.00 Credits) – Explores approaches to managing time, people, and resources to accomplish strategic and tactical projects, with a focus on leadership skills and communication, upward with those in the “C Suite”, downward with employees, and horizontally with different sectors within an organization. The course also looks at the skills needed to effectively manage an FM practice and to coordinate with the larger organizations they serve. Prerequisite: None.

ARPL 675: **Asset Management & Strategic Planning** (3.00 Credits) – Explores the financial side of facilities management, including the basics of real estate investment, development, and disposition. Students will learn to consider Lifecycle Cost Assessment (LCA), Total cost of Ownership (TCO), evaluate the value of a facility and to develop proposals for maximizing the return, financial and otherwise, gained from real estate assets by balancing benefit with cost, not just in terms of short-term profitability. Prerequisite: None.)

ARPL 677: **Construction Design & Implementation** (3.00 Credits) – Reviews the physical aspects of facilities. Students learn the basics of technical design and detailing, of documentation (drawings and specifications), and of construction management and administration. It reviews architectural and structural assemblies and materials; mechanical, electrical, plumbing, and fire protection systems; and landscape elements and materials. Prerequisite: None.)

Spring/Summer

ARPL 672: **Occupancy Management** (3.00 Credits) – A survey of the issues that underlie the management of activities and events that take place in facilities, with particular focus on institutional facilities. The course explores the evolving nature of the workplace and management of the security, emergency, and disaster preparedness issues that affect facilities. Students consider facilities that serve a diverse range of institutional needs including cultural, governmental, religious, educational, and military. Prerequisite: None.

ARPL 674: **Performance Assessment & Management** (3.00 Credits) – Looks at approaches to and techniques for verifying that facilities are functioning per their design intent and to minimize their impact on the environment and efficient use of energy, water, and other resources. Students will learn to prepare commissioning reports, post-occupancy evaluations, prepare Balanced Score Cards (BSC), and will learn the basics of monitoring, analyzing, and adjusting facilities and their physical components to work optimally, fulfill environmental certification programs such as LEED, and to respond to the evolving programmatic and contextual needs of the facility. Co- or Prerequisite: ARPL XXX: CSD&I.)

ARPL 676: **Information Technology for FM** (3.00 Credits) – Students learn multiple approaches to FM automation, including software used for financial calculations (spreadsheets, etc.), project management (PM), Geographic Information Systems (GIS), Building Information Modeling (BIM), Maintenance Management Systems (MMS), and Building Automation Systems (BAS). Prerequisite: None.

ARPL 678: **Construction Operation & Maintenance** (3.00 Credits) – Reviews the operation and maintenance of each of the constructed elements, systems, and equipment explored in ARPL XXX, CSD&I, including the idea of budgeting for operations and of reserve funds. Prerequisite: ARPL XXX: CSD&I.

As Needed

ARPL 771: **FM Capstone** (6.00 Credits) – This can be done as a studio, a directed practicum, or a research project. In all cases, students learn about and develop a response to a facilities management challenge under the mentoring of a faculty critic. Prerequisite: All other FM Program Core Courses, although a maximum of two other courses may be taken as co-requisites with the capstone.