



Graduate Study in Design and Environmental Analysis

Masters of Science in HUMAN/ENVIRONMENT RELATIONS

Two-Year Graduate Program

CONCENTRATION: Facility Planning and Management

The Facility Planning and Management Concentration is a multi-disciplinary program that draws on research, concepts, theory, and experience from the fields of facility management, psychology, organizational behavior, architecture and design, real estate, and business. The program focuses on the planning, design, and management of facilities for large, complex organizations such as corporations, health care institutions and universities. The focus is more on planning and management than on facilities operations and maintenance, though students are familiarized with issues in these areas. It also stresses how good facilities planning, design and management can help organizations' leverage their scarce resources of time, money and people to strengthen their competitive advantage. Through course work, often involving real clients, students develop the ability to analyze and develop programmatic requirements and workspace strategy, as well as implementation and evaluation strategies for workspace solutions that help organizations effectively plan, design, and manage their facilities to meet organizational goals.

Students may minor in many fields, but two of particular interest are:

- Real Estate Planning and Management
- Health Administration (Sloan Health Administration Program)

CAREERS

Students typically take positions in corporate facility planning and management departments in large organizations (e.g., IBM, Goldman Sachs, Toyota Motor), in workplace strategy units in large consulting firms (e.g., Price Waterhouse Coopers), and in the workplace consulting units of architectural and planning firms (e.g., Gensler, HOK, Nelson). Job functions in these departments range from project management, workspace analysis and space forecasting to developing, managing, and analyzing facility databases, workspace change management, and evaluation of workspace solutions. Salaries and career advancement are excellent.

M.S. REQUIREMENTS

Required courses in each of the four categories listed and outlined below provide students in the Facility Planning and Management concentration with a working knowledge of basic methods, procedures, concepts and research in this field. (In those cases where students come to Cornell having taken comparable courses they can petition to waive that course; or, if they believe they have gained a working knowledge of the material in the required courses through practical experience, they can petition to *test out of that course*. In either case, students are expected to work with their advisor to substitute other courses for those that are waived.)

- Facility Planning, Design and Management
- Real Estate and Development Practices
- Business Management, Financial Theory and Practice
- Research Methods and Thesis

■ FACILITY PLANNING, DESIGN & MANAGEMENT

Students attain a basic level of understanding and competency in three areas. First is an understanding of facilities themselves and their components including; the site and related systems; building systems and related technologies; building interiors including layouts, furnishings, finishes and equipment. Secondly, students attain basic competence in the techniques or procedures of facility planning and management. This includes techniques for analyzing, programming, planning, designing, constructing, managing, maintaining, operating and evaluating facilities. Third is an awareness of the importance of developing and maintaining facilities that are sustainable and protect the environment.

Required courses (6 courses, 18 credits total):		
CEE 5900	Project Management	4 credits
DEA 2040	High Performance Buildings	3 credits
DEA 6250	Human Dimensions of Sustainable Building	3 credits
DEA 6500	Problem-Seeking through Programming	4 credits
DEA 5540	Workplace Strategies Studio	4 credits

■ REQUIRED/RECOMMENDED DEA COURSE AUDITS

To provide all students with an introduction to the fields of Human-Environment Relations and Design, it is recommended that all students audit the first two courses listed below, unless they have taken similar courses elsewhere. The seminar course is required.

DEA field courses required or recommended (3 courses):			
DEA 1110	<i>Making a Difference By Design</i>	<i>Recommended</i>	<i>3 credits (audit)</i>
DEA 1200	<i>Art+Science: Sustainability, Multiculturalism, and Transdisciplinary</i>	<i>Recommended</i>	<i>3 credits (audit)</i>
DEA 1500	<i>Introduction to Environmental Psychology</i>	<i>Recommended</i>	<i>3 credits (audit)</i>
DEA 2550	Design Strategy and Management	<i>Recommended</i>	3 credits (audit)
DEA 3700	Design Methods	<i>Recommended</i>	3 credits (audit)
DEA 4500	Policy Meets Design: High-impact Facilities of the 21 st Century	<i>Recommended</i>	3 credits (audit)
DEA 7100	DEA Graduate Pro Seminar	<i>Required</i>	*1 credit (*each semester)
DEA 6200	Studies in Human-Environment Relations	<i>Required</i>	3 credits
DEA 6100	Studies in Design Thinking	<i>Required</i>	3 credits

■ RESEARCH METHODS

A basic premise of the program in Facility Planning and Management at Cornell is that research derived knowledge should form the basis for practice in this newly established profession. This commitment to the development of an empirically tested knowledge base requires that students as future practitioners develop an understanding of research and research methods so that they can appreciate, evaluate and apply the new knowledge and procedures as they emerge. In addition, knowledge or research methods will enable students to carry out or to contract for, and manage effectively, research on questions of interest in planning, managing and evaluating their facilities.

Required courses (2 courses, 7-8 credits total):		
Various	Statistics (approved by committee)	3-4 credits
DEA 6560	Research Methods in Social Sciences	4 credits

■ BUSINESS MANAGEMENT, FINANCIAL, THEORY AND PRACTICE

As a management function, facility management includes two levels of managerial/administrative activity, financial planning and budgeting. Students need to understand such things as capital-budgeting decisions, the cost of capital and cost allocation systems.

Select any one of the following required courses (3 credits total):		
AEM 2241	Finance	3 credits
HADM 1210	Financial Accounting	3 credits
HADM 2210	Managerial Finance	3 credits
HADM 2220	Finance	3 credits
HADM 2250	Finance	3 credits

■ REAL ESTATE, PLANNING AND DEVELOPMENT PRACTICES

Acquiring and disposing of rented and owned property is an essential activity of facility management. Facilities comprise a significant component of corporate assets and of corporate operating costs. Managing these assets as an investment and profit center is also an important aspect of Facility Planning and Management.

Select any one of the following required courses (3 credits total):		
CRP 5320	Real Estate Development Process	3 credits
CRP 5330	Real Estate Marketing and Management	3 credits
HADM 6200	Principles of Real Estate (Prereq. HADM 2220, HADM 2250 or AEM 3240)	3 credits

■ COURSES IN MINOR

Students select a Minor Committee member by the end of their first semester. Typically, the Minor member requires 2-3 courses in the minor field. The courses are determined jointly by the student and the Minor member.

Required courses (2-3 courses, 6-9 credits):		
Various	2-3 courses	6-9 credits

■ THESIS COURSE

DEA 8990	Master's Thesis	8-12 credits
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* Thesis research is typically taken in each of the two semesters of the second year, with 3 credits in the third semester, and 7 credits in the fourth semester. This can vary and should be determined in consultation with the student's Chair.

■ SUMMARY OF CURRICULUM

Summary of Curriculum	Number of Courses	Total Credits
FPDM Required Courses	6	18
Required DEA field courses	3	10 (6+1/ semester)
RM Required Courses	2	7-8
BMFTP Required Courses	1	3
REPDP Required Courses	1	3
Courses in Minor	2-3	6-9
Master's Thesis*	1-2	8-12
Total Courses: 16-18		Total Credits: 55-63

* Thesis credits are determined at the discretion of the thesis committee; the number of courses and credits listed merely indicate typical range.

NOTE: A minimum grade of B- is required for courses taken within the major.

■ **ELECTIVE COURSES OF POTENTIAL INTEREST**

Select any two of the following required courses (6 credits total):		
AEM 1200	Introduction to Business Management	3 credits
AEM 3200	Business Law I (Also NBA 5600)	3 credits
ARCH 1611	Environmental Systems I—Site and Sustainability (ARCH 5611)	3 credits
ARCH 2614	Building Technology, Material and Methods	3 credits
ARCH 2616	Environmental Systems II—Building Dynamics (or ARCH 5616)	3 credits
ARCH 3602	Environmental Systems III—Building Sys. Integration	3 credits
CEE 5950	Construction Planning and Operations	3 credits
DEA 3030	Interior Materials and Sustainable Elements	3 credits
DEA 4100	Diversity and Facility Design	3 credits
DEA 6510	Ergonomics and Anthropometrics	4 credits
DEA 6520	The Ambient Environment	4 credits
DEA 6550	Healthcare Innovations	3 credits
DEA 6610	Environments and Health *Offered spring semester of even years, i.e. '12, '14, '16, etc.	4 credits
HADM 2230	Financial Accounting Principles	3 credits
HADM 2550	Hospitality Development and Planning	3 credits
HADM 3510	Hospitality Facilities Design	4 credits
HADM 6210	Hospitality Real Estate Finance	3 credits
HADM 6280	Real Estate, Finance and Investment	3 credits
NBA 5750	Management Projects	3 credits
NCC 5000	Financial Accounting (or AEM 2210)	3 credits
NCC 5030	Marketing Management	3 credits
NCC 5040	Management and Leading in Organizations	3 credits
NTRES 2010	Environmental Conservation	3 credits