

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 (Pick 28 credits total from the following 32 credits):		
DEA 6590	Intro to Facility Planning and Mgmt	1 credit
DEA 2040	Intro to Building Technology	2 credits
DEA 2150	Digital Graphics	1 credit
DEA 2410	Intro to Computer-Aided Design	1 credit
DEA 3030	Interior Materials and Sustainable Elements	3 credits
DEA 4150	Strategic Facility Planning for Social Institutions	3 credits
DEA 4540	Computer-Aided Facility Management	1 credit
CEE 5900	Project Management	4 credits
DEA 6500	Programming Methods in Design	4 credits
DEA 6530	Planning and Managing the Workplace	4 credits
DEA 6540	Facility Planning and Mgmt Studio	4 credits
DEA 6520	Human Factors: The Ambient Environment	4 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 6620	Principles of Real Estate	3 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 two of the following required courses (6 credits total):		
AEM 1200	Introduction to Business Management	3 credits
AEM 2210	Financial Accounting	3 credits
AEM 3240	Finance	3 credits
NCC 5060	Managerial Finance	2.5 credits

■ RESEARCH METHODS & THESIS

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 (13-18 credits):		
	Statistics (approved by committee)	3-4 credits
DEA 6560	Research Methods in Human-Environ Relations	4 credits
DEA 8990	Master's Thesis & Research	10 credits*

* 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.

■ REQUIRED DEA COURSE AUDITS

To provide all students with an introduction to the fields of Human-Environment Relations and Design, all students are required to audit both courses listed below unless they have taken similar courses elsewhere.

Required course audits (2 courses):		
DEA 1110	Making a Difference: by Design	(audit)
DEA 1500	Intro to Human-Environment Relations	(audit)

■ COURSES IN MINOR

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

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

■ SUMMARY OF CURRICULUM

	Number of Courses	Total Credits
Required FPM courses	9-12	28
Real Estate, Planning and Development Practices	1	3
Business Management, Financial, Theory and Practice	2	6
Research Methods & Thesis	3	13-18
Required DEA course audits	2	audit
Courses in minor	2-3	6-9
		Total: 56-64

■ ELECTIVE COURSES OF POTENTIAL INTEREST

AEM 3200	Business Law I (Also NBA 560)	3 credits
ARCH 2601	Environmental Systems I—Site Planning	3 credits
ARCH 2602	Building Technology, Material and Methods	3 credits
ARCH 3601	Environmental Systems II—Thermal Environ. Systems	3 credits
ARCH 3602	Environmental Systems III—Building Sys. Integration	3 credits
CEE 5950	Construction Planning and Operations	3 credits
DEA 2030	Digital Communications	2 credits
DEA 4100	Facility Planning & Design in a Diverse Society	3 credits
DEA 4720	Envrmts. for Elders: Housing & Design for Aging Pop	3 credits
DEA 6450	Dancing Mind/Thinking Heart: Creative Problem-Solving Theory and Practice	3 credits
DEA 6480	Virtual Design, Analysis & Representation	3 credits
DEA 6510	Human Factors: Ergonomics/Anthropometrics	4 credits
DEA 6600	The Environment and Social Behavior	4 credits
DEA 6610	Environments and Health	3 credits
DEA 6700	Applied Ergonomics Methods	4 credits
HADM 2223	Financial Accounting Principles	3 credits
HADM 2255	Hospitality Development and Planning	3 credits
HADM 3351	Hospitality Facilities Design	4 credits
HADM 4457	Hotel Development	3 credits
HADM 6621	Hospitality Real Estate Finance	3 credits
HADM 6628	Real Estate, Finance and Investment	3 credits
NBA 5750	Management Projects	3 credits
NCC 5000	Financial Accounting (or Ag. Ec. 221)	3 credits
NCC 5030	Marketing Management	3 credits
NCC 5040	Management and Leading in Organizations	3 credits
NTRES 2010	Environmental Conservation	3 credits

NOTE: Effective as of Fall 2007, a minimum grade of B- is required for courses taken within the major.