



# THE FACULTY SENATE

November 18, 2002

## MEMORANDUM

**TO:** President Robert M. Gates

**SUBJECT:** Certificates in Environmental Hazard Management, Facility Management, Health Systems Design, and Historic Preservation (**FS.20.62**)

At its regular meeting on November 11, 2002, the Faculty Senate approved the following item for the Graduate Council and submits it for your approval. Attached is a copy of the material sent to our Secretary.

**College of Architecture Certificates on University Transcripts**  
**Certificate in Environmental Hazard Management**  
**Certificate in Facility Management**  
**Certificate in Health Systems and Design**  
**Certificate in Historic Preservation**

Thank you for your time and consideration. Please inform me of your action on this matter.

Robert H. Strawser  
Speaker, 2002-2003

Attachment

cc: Dr. David Prior  
Dr. Karan Watson  
Dr. Rick Giardino  
Mr. J. Thomas Regan

Approved:

  
\_\_\_\_\_  
Robert M. Gates, President

1-6-03  
\_\_\_\_\_  
Date



TEXAS A&M UNIVERSITY

College of Architecture  
Office of the Dean

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TO: J. Rick Giardino, Dean  
Office of Graduate Studies

FROM: Mark Clayton  
Executive Associate Dean

A handwritten signature in black ink, appearing to read "Mark Clayton", with a horizontal line underneath.

DATE: October 9, 2002

SUBJECT: Agenda Item Request:  
*College of Architecture Certificates on University Transcripts*

The College of Architecture requests that "College of Architecture Certificates on University Transcripts" be added to the GOC Agenda for its October 10, 2002 meeting. The College of Architecture currently houses four (4) certificate programs. They are:

*Certificate in Environmental Hazard Management*

*Certificate in Facility Management*

*Certificate in Health Systems and Design*

*Certificate in Historic Preservation*

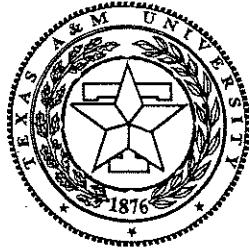
Appropriate certificate material for all four programs is attached and the requested 25 copies are provided. Please contact Kathy Waskom at 845-2639 if more information is needed in order to place this item on the agenda.

Attachments



**FACILITY  
MANAGEMENT  
CERTIFICATE**

College of Architecture  
Texas A&M University



# The Certificate in Facility Management

Approved: August 1999

Revised: October 1, 2002

## THE CERTIFICATE IN FACILITY MANAGEMENT

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# THE CERTIFICATE IN FACILITY MANAGEMENT

## PART I: General Description

### Purpose

The certificate in facility management provides students in any graduate degree program in the College of Architecture at Texas A&M University an opportunity to develop a body of knowledge in facility management that will further their career goals. The certificate assumes that facility management is a cross-disciplinary field, and that the program is designed to ensure that students gain a sense of mutual respect for others in the field, and appropriate awareness, understanding, and ability within a specific body of knowledge.

### The Facility Management Certificate Council

The Council for the Certificate in Facility Management (the Certificate Council) is comprised of not less than three (3) faculty with expertise in the field, and is appointed by the Dean of the College of Architecture to advise on all matters relating to the program.

The Graduate Advisory Committee for each student, with the oversight of degree coordinators, department heads, and the Office of Graduate Studies, is responsible for the academic program of the student. However, the Certificate Council is charged with ensuring that students recommended for the certificate have met content standards.

The program can be accomplished within the minimum number of hours required for the degree; however, additional hours may be required by the student's Graduate Advisory Committee, and students may choose to take additional hours not on the degree plan in order to meet the requirements for the certificate.

### The Certificate

The Certificate in Facility Management was approved by the College of Architecture Executive Committee in August, 1999.

The certificate is awarded after the completion of the program, and must be signed by the head of the student's academic department and the dean of the college. The certificate contains the seal of the university and appropriate text. It will normally be presented at college ceremonies prior to the official university graduation exercises. The cost of producing and framing the certificates is covered by the Office of the Dean.

## **PART II: Criteria and Course Requirements**

The College of Architecture will award the certificate in Facility Management to students who meet the criteria listed below:

1. Any student admitted to a graduate degree program offered in the College of Architecture should declare the intent to seek the Certificate in Facility Management at the time of filing a Degree Plan. (See Part VI for a copy of the application form). Application forms are also available in the Graduate Programs Office of the College.
2. The student must complete a MINIMUM of fifteen (15) credit hours of course work with facility management content. The courses MUST be applicable toward a graduate degree at Texas A&M University, but may not necessarily be included on the student's degree plan. COSC 670, Introduction to Facility Management, is required. A capstone course of at least 3 credit hours must also be approved by the Certificate Council. This capstone course may be a final study, thesis or research paper that is taken as part of the students normal degree program. At least three (3) credit hours of course work with facility management content MUST be from outside the student's major field.
3. On completion of all requirements for the degree, the student will receive a Certificate in Facility Management signed by the Dean and the appropriate Department Head.

The student's Graduate Advisory Committee remains the primary body for recommending the degree plan content. Courses required or intended for the Certificate in Facility Management may be used in the degree plan with the concurrence of the Graduate Advisory Committee. Students may also add other courses in order to fulfill the Certificate requirements. Students are encouraged to consult with their Graduate Advisory Committee AND a member of the Certificate Council as their degree plan is being developed. A written statement should be provided to explain why courses not on the list of approved courses should be allowed toward the certificate. The content relating to Facility Management emphasis for the certificate should be clearly demonstrated.

## **PART III: A. Approved Courses for the Certificate**

### **Approved Courses and Course Content**

The Certificate Council will make available a list of courses, inside and outside the College of Architecture, that meet the requirements for facility management content. The list, and associated syllabi and names of instructors, will be on file in the office of the CRS Center, 418 Building C.

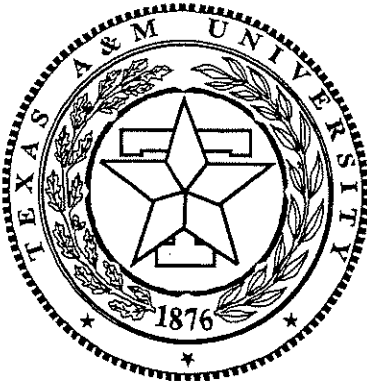
Where a student identifies a course not on the list, or wishes to transfer a course from another institution, the syllabus and specific reference to facility management content **MUST** be submitted to the Certificate Council for review. Courses not accepted for use toward a graduate degree at Texas A&M University may not be used toward the certificate.

If a course has a generic topic (for example a design studio in architecture or a capstone studio course in land development or planning), the facility management content and the student's specific role in working with that content must be stated in a supporting letter from the student and submitted with the application. The letter should be co-signed by the instructor of the course.

As a general practice, a member of the Certificate Council who also serves as a chair of a student's Graduate Advisory Committee will not provide signature approval at any step in the application process. The Certificate Council may seek input from faculty concerning course content and/or the specific contribution of a student in a course with team activity.

Where the Certificate Council makes a negative finding as to the applicability of a course, or a final project, the finding will be made in writing with copies to the student, student file, and chair of the student's Graduate Advisory Committee. Appeals against findings of the Certificate Council will be made to the academic dean of the College of Architecture, whose decision will be final.





The College of Architecture  
Texas A&M University

# Certificate in Facility Management

awarded to

Student

in recognition of the completion of a program  
of study in Facility Management approved by the faculty  
as a part of the requirements for the degree of

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXXX

Dean of the College

XXXXXXXXXXXXXXXXXXXX

Head of the Department

Month Year

### **PART III: B. Faculty**

The following faculty have reviewed the certificate in facility management and have asked that their name be added to the list of faculty for the certificate.

\* David L. Bilbo, Ph.D., Assistant Department Head and Associate Professor of Construction Science

John A. Bryant, Ph.D., Assistant Professor of Construction Science

Mark J. Clayton, Ph.D., Assistant Professor of Architecture

\* Jeff S. Haberl, Ph.D., Associate Professor of Architecture

Nancy L. Holland, Ph.D., Associate Professor of Construction Science

\* Robert E. Johnson, D.Arch., Director, CRS Center and Professor of Architecture

Michael K. Lindell, Ph.D., Director, Hazard Reduction and Recovery Center and Professor of Construction Science and Landscape Architecture and Urban Planning

Valerian Miranda, Ph.D., Associate Professor of Architecture

David L. Pugh, Ph.D., Associate Professor of Landscape Architecture and Urban Planning

Andrew D. Seidel, Ph.D., Professor of Architecture and Landscape Architecture and Urban Planning

Atef M. Sharkawy, Ph.D., Professor of Landscape Architecture and Urban Planning

Mardelle M. Shepley, D.Arch, Associate Professor of Architecture

Louis G. Tassinary, Ph.D., Director, Environmental Psychophysiology Laboratory and Associate Professor of Architecture

\* Ward V. Wells, Professor of Architecture

David G. Woodcock, Director, Historic Resources Imaging Laboratory and Professor of Architecture

\* Paul K. Woods, Ph.D., Associate Professor of Construction Science

\* = member of the Facility Management Certificate Council

**PART III: C. List of Courses Offered in the College of Architecture  
Relevant to the Facility Management Certificate**

**College of Architecture CAPSTONE Facility Management Courses**  
*(One must be selected to fulfill requirements for the certificate)*

ARCH 693	Thesis Research	3 *
COSC 693	Professional Paper	3
LDEV 693	Professional Paper	3

\* ARCH 693 is a 6 credit hour course, but only 3 may be counted towards the FM certificate.

**Required Facility Management Course**

COSC 670	Introduction to Facility Management	3
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**ELECTIVES: Operations and Maintenance**

ARCH 619	Applied Solar Energy	3
ARCH 621	Energy Optimization in Building Design	3
ARCH 633	Environmental Control Systems	3
ARCH 634	Architectural Lighting	3
COSC 674	Facility Energy Management	3
MEEN 436	Principles of Heating, Ventilation and Air Conditioning	3
MEEN 437	Principles of Building Energy Analysis	3
MEEN 664	Energy Management in Commercial Buildings	3
MEEN 665	Application of Energy Management	3

**ELECTIVES: Finance and Real Estate**

LDEV 661	Development and the Environment	3
LDEV 662	Land Development and the Law	3
LDEV 664	Market Analysis for Development	3
LDEV 667	Project Development	3
ACCT 640	Accounting Concepts and Procedures	3
FINC 635	Financial Management for Non-Business	3
FINC 639	Real Estate Development Analysis	3
FINC 672	Real Property Finance (FINC 655 prereq.)	3

**ELECTIVES: Planning, Project Management, Technology**

ARCH 642	Data Processing in Environmental Design	3
ARCH 652	Facility Information Technology	3
COSC 619	Project Acquisition and Control	3
COSC 620	Construction Operations	3
COSC 621	Adv Topics Construction Sched and Proj Mgmt	3
COSC 622	Construction Resources	3
COSC 630	Systems Approach to Construction	3
COSC 642	Web-Based Construction Data Management	3
LDEV 663	Introduction to Project Management	3
MGMT 630	Organizational Behavior	3
MGMT 655	Survey of Management	3

**ELECTIVES: Human and Environmental Factors**

ARCH 646	Historic Building Preservation	3
ARCH 660	Design Programming	3
ARCH 663	Interior Architecture I	3
ARCH 676	Survey of Human Behavior and Design	3
COSC 664	Construction Safety Management	3
COSC 672	Facility Planning, Design and Construction (under dev)	3

**ELECTIVES: Internships**

ARCH 684	Professional Internship	1-3
COSC 684	Internship	3

**PART III: D. Model Degree Plan for Master of Architecture Students Seeking a Certificate in Facility Management**

Fall Semester I	ARCH 605	Design I	6
	ARCH 631	Architectural Structures III	3
	COSC 670	<i>Introduction to Facility Management (Req'd for FM)</i>	<u>3</u>
			12
Spring Semester I	ARCH 606	Design II	6
	ARCH 633	Environmental Systems III	*3
	ARCH ---	Architectural History	<u>3</u>
			12
Summer	ARCH 684	Professional Internship	
or	Elective		3
Fall Semester II	ARCH 607	Design III	6
	ARCH 685	Directed Studies (Final Study Prep)	1
	Elective		*3
	Elective		<u>*3</u>
			13
Spring Semester II	<i>ARCH 693</i>	<i>Professional Study (Final Study) (Req'd for FM)</i>	**6
	ARCH 657	Professional Practice	3
	Elective		<u>*3</u>
			12
Minimum hours standard degree			<b>52</b>

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Required classes for the facility management certificate are in *italics*.

\* Possible facility management electives, at least one of which must be a course outside the Department of Architecture with facility management content. For a list of these courses please refer to section III.C.

\*\* Students must complete a capstone Professional Study or Thesis with a Facility Management focus that is approved by the Facility Management Certificate Council. Although this is a 6 credit hour course, only 3 credit hours may be counted toward the FM certificate.

**PART III: E. Model Degree Plan for Master of Science in Architecture  
Students Seeking a Certificate in Facility Management**

Fall Semester I	CARC 601	Foundations of Research	3
	<i>COSC 670</i>	<i>Introduction to Facility Management (Req'd for FM)</i>	3
	Elective	Major Area (Facility Management)	*3
	Elective	Minor Area	<u>3</u>
			12
Spring Semester I	Writing Course (ENGL 660 or equivalent)		3
	Elective	Major Area (Facility Management)	*4
	Elective	Minor Area	3
	ARCH 685	Directed Studies (Final Study Prep)	<u>1</u>
			11
Fall Semester II	Elective		3
	<i>ARCH 691</i>	<i>Thesis Research (Req'd for FM)</i>	<u>**6</u>
			9
Minimum hours standard degree			<b>32</b>

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Required classes for the facility management certificate are in *italics*.

- \* Possible facility management electives, at least one of which must be a course outside the Department of Architecture with facility management content. For a list of these courses please refer to section III.C.
- \*\* Students must complete a capstone Professional Study or Thesis with a Facility Management focus that is approved by the Facility Management Certificate Council. Although this is a 6 credit hour course, only 3 credit hours may be counted toward the FM certificate.

**PART III: F. Model Degree Plan for Master of Science in Construction Management Students Seeking a Certificate in Facility Management**

Fall Semester I	COSC 690	Theory of Research	3
	STAT 651	Statistics in Research	3
	COSC 681	Research Seminar	1
	Elective		*3
	<i>COSC 670</i>	<i>Introduction to Facility Management (Req'd for FM)</i>	<u>3</u>
			13
Spring Semester I	COSC Elective		*3
	Elective		*3
	COSC 693	Research Proposal Development	2
	Elective		<u>*3</u>
			11
Fall Semester II	COSC Elective		*3
	<i>COSC 693</i>	<i>Professional Paper (Req'd for FM)</i>	**3
	Elective		*3
	Elective		<u>*3</u>
			12
Minimum hours standard degree			36

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Required classes for the facility management certificate are in *italics*.

- \* Possible facility management electives, at least one of which must be a course outside the Department of Construction Science with facility management content. For a list of these courses please refer to section III.C.
- \*\* Students must complete a capstone Professional Study or Thesis with a Facility Management focus that is approved by the Facility Management Certificate Council.

***The Department of Construction Science also requires the following:***

***18 credit hours must have the COSC prefix.***

***6 credit hours must not have the COSC prefix (excluding statistics)***

**PART III: G. Model Degree Plan for Master of Science in Land Development Students Seeking a Certificate in Facility Management (45 Credit Program)**

Fall Semester I	LDEV 664	Market Analysis for Development	*3
	LDEV 667	Design Development Economy	*3
	LDEV 677	Residential Project Development	3
	<i>COSC 670</i>	<i>Introduction to Facility Management (Req'd for FM)</i>	<u>3</u>
			12
Spring Semester I	FINC 639	Real Estate Development Analysis	*3
	LDEV 662	Development Law	*3
	LDEV 678	Commercial Project Development	3
	LDEV 663	Project Management	<u>*3</u>
			12
Summer	LDEV 687	Development Analysis and Feasibility I, and	3
	LDEV 688	Development Analysis and Feasibility II	3
	<i>LDEV 693</i>	<i>Professional Study (Req'd for FM)</i>	<u>**3</u>
			9
Fall Semester II	LDEV Elective Course 1 (Environmental Issues)		3
	Leveling Course		3
	Elective Course 2		*3
	Elective Course 3		<u>*3</u>
			12
Minimum hours standard degree			<b>45</b>

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Required classes for the facility management certificate are in *italics*.

\* Possible facility management electives, at least one of which must be a course outside the Department of LAUP with facility management content. For a list of these courses please refer to section III.C.

\*\* Students must complete a capstone Professional Study or Thesis with a Facility Management focus that is approved by the Facility Management Certificate Council.



**PART III: H. Other Degree Plans**

Students seeking a Certificate in Facility Management from other graduate degree programs should consult with their Degree Coordinator and their Graduate Advisory Committee.

## **PART IV: Steps Toward Obtaining the Certificate**

Students are encouraged to meet with a member of the Facility Management Certificate Council prior to filing an application and completing a degree plan.

**Step One:** *Application for the Certificate.* At the time of filing a degree plan the student will complete an Application for the Facility Management Certificate and attach to it a copy of the degree plan signed by the student's Graduate Advisory Committee and the head of the student's department. The Certificate Council will review the application for compliance with the requirements for content.

**Step Two:** *Review of the Application.* At the time a professional study, professional paper, thesis, or dissertation abstract is approved by the Graduate Advisory Committee the student will provide an abstract, and any supporting justification as may be required, to the Certificate Council. In the case of Doctoral Students, dissertation topic approval takes place at the dissertation defense. The qualifying exam should also be presented to the certificate council so that the committee can evaluate its relevance prior to further development of the topic. The Certificate Council will review the application for compliance with the requirements for content.

**Step Three:** *Issue of the Certificate.* At the time the student is approved for receipt of the degree, the Graduate Programs Office will review the approved certificate courses and advise the dean of the College of successful completion. The dean will then authorize the granting of the certificate.

## **PART V: Policy for Maintaining Student Records for Certificate Programs**

Official Facility Management Certificate records consist of the Application, copy of the approved Degree Plan (and any subsequent Petitions that may impact the previously approved program), an Abstract (see attached application form) of the final project topic, and any official correspondence.

1. These records will be kept in the official student folders in the Graduate Programs Office of the College of Architecture.
2. For reference purposes the Graduate Programs Office will create and maintain a database showing all students who have received, or are currently enrolled in, a certificate program.

The database should indicate:

NAME  
DEGREE PROGRAM  
DATE OF APPLICATION  
DATE OF ACTIONS FOR EACH STEP ABOVE  
TITLE OF PROJECT, PAPER, THESIS, OR DISSERTATION  
NAME OF CHAIR OF GRADUATE ADVISORY COMMITTEE  
DATE OF DEGREE/CERTIFICATE AWARDED

PERMANENT/CURRENT ADDRESS/E-MAIL

EMPLOYMENT DATA

This database should be accessible by the certificate program office, which may also maintain hard copy files as may be deemed appropriate for developing data on the career histories, addresses, email address, etc. of certificate holders and current students.

Student grades will not be available outside the Graduate Programs Office, and personal data will not be released, except in accordance with state law and university guidelines.

**PART VI:  
Student Application and Course Plan for  
Certificate in Facility Management**

Date of Application to Certificate Program: \_\_\_\_\_

**Student Information**

Name: \_\_\_\_\_ Student ID Number: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone(s): \_\_\_\_\_ Email: \_\_\_\_\_

**Degree Information**

Department: \_\_\_\_\_

Degree Program (please circle)

Ph.D. ARCH URSC M.ARCH MLA MUP MS(Arch) MSLD MS(COMG) MS(VIZA)

Chair of Graduate Advisory Committee: \_\_\_\_\_

Expected completion date: \_\_\_\_\_

Please provide BOTH a) a preliminary description or final abstract and b) a copy of the approved proposal of the dissertation, final study thesis, or professional report or paper *that clearly demonstrates the significance of the research to the field of facility management.*

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This completed application must be submitted to:  
Dr. Robert Johnson, Chair, FM Certificate Program  
CRS Center (Room C418)  
Langford Architecture Center

## Student Course Plan for FM Certificate

List below proposed courses to meet FM Certificate requirements.

Department Abbreviation	Course Number	Course Title	Credit
<i>COSC</i>	<i>670</i>	<i>Introduction to Facility Management</i>	<i>3</i>
Total hours listed for credit			

- Note: In unusual cases, when a student identifies a course not on the list or wishes to transfer a course from another institution, the syllabus and specific reference to facility management content **MUST** be submitted for review. Courses not accepted for use toward a graduate degree at Texas A&M University may not be used toward the certificate.
- Where a course has a generic topic (for example a design studio in architecture or a capstone studio course in planning) the facility management content and the student's specific role in working with that content must be stated in a supporting letter from the student submitted with the application and signed by the instructor
- **IMPORTANT:** Please attach a copy of your approved degree plan, as approved and signed by your Graduate Advisory Committee.

\_\_\_\_\_  
Signature of Student Date

**Approval Recommended:**

\_\_\_\_\_  
Facility Management Certificate Council

\_\_\_\_\_  
Date

Distribution:

Grad Programs Office	Certificate Office	Student	Chair, Student's Graduate Advisory
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