PROFESSOR W. ENNIS PARKER, AIA

### **Purpose:**

The development, design and construction of our built environment (buildings and infrastructure) has become an increasingly more complex set of endeavors requiring focused and sophisticated management. In the United States, a relatively new professional service called program management or construction program management has developed in response to this increased complexity. One of the major functions of the Program Manager is the procurement and successful management of the design process. This course serves two purposes: the first is to cover the activities required to perform the design management function as a program manager; the second is to serve as the second in series of courses intended to become the core for a future Master of Science degree in program management.

The course will focus on the management of all elements of the design process, not just for buildings but for civil and infrastructure construction as well.

Learning Outcomes: At the conclusion of this course, you should be:

### 1. Familiar with:

- The design process for building design
- The design process for infrastructure (horizontal) project design
- Differences in design roles among project delivery methods
- Various ways in which architects and engineers are selected
- Contracts for architecture, engineering and A/E services

### 2. Understand:

- How to approach, in general, the management of both single and multiple building programs including pre-design, design, construction and post-construction activities
- The interrelated roles of all parties and *in particular* the role of the program manager in the design and construction industry
- How to select a designer (architect/engineer)
- How to plan the design activities on a project
- How to manage the design process in a complex project or projects

## 3. Be able to:

- Develop a request for qualifications for architecture services
- Develop a request for proposal for architecture services
- Develop a request for qualifications for engineering services
- Develop a request for proposal for engineering services
- Understand ways in which fees are developed
- Develop a schedule for a design project
- Negotiate a design contract
- Describe design objects
- Describe various approaches to design management

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This course is organized in both lecture and seminar format and will employ lectures by both the course instructor and outside practitioners. It will also involve visits to offices of companies (architects, engineers, construction managers, program managers) involved in the industry and sites of on-going projects and programs.

There are fourteen lecture periods of two hours and fifty minutes each.

**Evaluation:** You are expected to attend class regularly, read the material assigned, prepare to discuss cases as assigned, and participate actively in the discussion periods. Your grade will be determined by your participation in class discussion, case presentations, a mid-term and final exam.

- Class Participation, 30%
- Mid-term examination, 30% (take home)
- Final Exam, 40% (in classroom)
- Case Presentations —These are hypothetical situations that you might encounter as a program manager managing the design process. You will be asked randomly to discuss the case or cases and present your solution to the situation presented. These will be graded as a part of class participation.

Georgia Tech aims to cultivate a community based on trust, academic integrity, and honor. Students are expected to act according to the highest ethical standards. For policy information on Georgia Tech's Academic Honor Code, please see <a href="http://www.catalog.gatech.edu/rules\_regulations/#18">http://www.catalog.gatech.edu/rules\_regulations/#18</a>].

**Reading Assignments:** There is no single text of sufficient depth and breadth to adequately cover the subjects addressed in this course. Assignments will be made from the text below:

A. Course Text: "Managing the Building Design Process, Second Edition", Gavin Tunstall

Readings to be assigned on the first day of class

## B. General Information and Additional Reading

- 1. House by Tracey Kidder
- 2. Program Management by Charles Thomsen

**Additional Information**: All cell phones should be turned off during class.

In case of emergency (i.e. fire, accident, criminal act), please call the Georgia Tech Police at 404-894-2500. Please note that Perry Minyard, IT Support Administrator is also a firefighter and an Emergency Medical Technician (EMT) certified in performing CPR.

Students with disabilities requiring special accommodations must obtain an accommodations letter from the ADAPTS Office [www.adapts.gatech.edu] to ensure appropriate arrangements.

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## Course Schedule (all dates 6:05 to 8:55 pm)

Month	Date	Lecture	e #.	<b>Topic</b>
August	24	1		Introduction to the course/participants/rules/syllabus- Definitions and Industry overview (Parker)
	31	2		Historical evolution of design (Prof. Brian Bowen)
September	7	3		Design and designers
	14	4		The design process in building designinception/ Planning/the brief or program of requirements
	21	5		Permissions and approvals
	28	6		Design Planning
October	5	7		Sustainability Design (Will Brodnax of Energy Ace)
	12	8		The program of requirements
	19	9		The Clough Undergraduate Learning Center – discussion and tour – Scott Jones, AIA
	26	10		Cost control in the design process (Prof. Bowen)
November	2 Horne)	11		Civil Engineering (Emmy Montanye, PE, Kimley
	9	12		Leadership and Team Dynamics Communications (Scott Braley FAIA)
	16		13	The effects of alternative delivery methods on the design process (Design Build and IPD)/Economics of design/fees and payment issues
	23	14		Case study presentations
	30	15		Architectural and engineering contracts and risk management (George Sewell Esq.)
December	7	16		The Contractor/Review for Final
	14	17		Final Exam (TBA)

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## READING ASSIGNMENTS

Month	Date	Lecture #.	Reading Assignment (from Tunstall)
August	24	1	Chapter 1: About the book
	31	2	Chapter 2: Design and designers
September	7	3	Chapter 2: Design and designers
	14	4	Chapter 4: Permissions and approvals
	21	5	Chapters 5: Inception
	28	6	Chapter 6: Design planning
October	5	7	Chapter 7: The brief (program)
	12	8	Chapters 8 and 9: Design function parts I and II
	19	9	Chapter 10: Aesthetics
	26	10	Chapter 11: Construction Information
November	2	11	Chapter 12: Pre-contract administration
	9	12	Chapter 13: Construction supervision
	16	13	No assignment
	23	14	Chapter 14: Completion
	30	15	Chapter 15: Feedback
December	7	16	Chapter 16: Conclusion
	14	17	Final Exam (TBA)

## Course Policies:

Cell phones: All communication devices must be turned off in the classroom. The use of cell phones, beepers, or other communication devices is disruptive and is therefore prohibited during class. No personal listening devices are permitted.

Emergencies: In case of emergency, please call the Georgia Tech Police at 404 894 2500.

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Assignment Deadlines: All assignments given are due on the date indicated. All students are expected to complete any and all assignments given. The instructor reserves the right to modify assignments as necessary. You will not receive credit for late assignments (homework, projects, readings, and others). However, the instructor will accept and correct these assignments in order to provide you with feedback that will be beneficial in the learning process. NO EXCEPTIONS.

Attendance is mandatory for all class lectures, labs, site visits, and exams, unless you are ill or officially excused by the instructor as the result of participation in a university function. If you attend fewer that 75% of the scheduled class meetings, you will not receive credit for the course. Any student arriving late for class or leaving early from class ill be counted as absent from that class period. This policy is in your best interests, since attendance is essential for understanding some of the complex reasoning processes covered in this course.

You may submit all written work to the instructor in class, in hard copy or by 3-mail. You can also ask questions and ask for clarification by e-mail, in class, or by visiting the instructor by appointment iat his/her office. Students must discuss grades with the instructor in person only.

The reading assignments, cases and discussion forums are an integral element of the course. Students are expected to complete readings and other assigned work prior to each class. Lectures may not explicitly follow the assigned book reading but are design to bring together divers information from various sources.

Field trips, if scheduled, will be mandatory and will be announced well in advance.

Snacks and drinks are allowed in class.

If the instructor is late, you must wait a full 20 minutes after the start of class before you may leavie without being counted absent (or follow any written instructions the instructor may give you about the anticipated absence or tardiness.

Information contained in the course syllabus, other than grade and absence policies, may be subject to change with reasonable advance notice.