IE 486.001 SERVICE SYSTEMS ANALYSIS
COURSE SYLLABUS: SPRING 2018
TR 8:00am – 9:15pm, AGIT 211

INSTRUCTOR INFORMATION

Instructor: Dr. Marty Yaqub, Ph.D., D.Eng., M.B.A.
Department of Engineering & Technology

Office Location: Charles J. Austin Engineering & Technology Building, Room 220

Office Hours:
Tuesday 09:15 pm to 11:00 am
01:15 pm to 02:00 pm

Thursday 09:15 pm to 11:00 am
01:15 pm to 02:00 pm

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COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required

Textbook Required: Fitzsimmons, J., & Fitzsimmons, M. (2013) Service management: Operations, strategy, information technology. 8th Edition. McGraw-Hill Higher Education, ISBN-13: 978-0078024078.

Instructor will provide lecture slides/ handouts as references too.

Course Description

This course focuses on analyses and visualization of engineering issues faced by service industries contrasted against production and manufacturing industries. Emphasis is on service business models and technological tools that are used in serving various business including metrics to measure quality of services.
Co-Requisite: IE 495 Industrial Systems Design.

Student Learning Outcomes

Upon completion of this course, the student will be able to:

1. be able understand the various roles of service in our economy.
2. be able to define and apply a service strategy
3. be able to specify requirements for both strategic and operational issues pertaining to services.
4. be able to understand and apply techniques for ensuring quality and evaluating long-term strategy planning.
5. acquire an understanding to analyze various service operations.
6. be able to specify the requirements, analyze, and design balanced management system for service business.
7. be able to develop techniques for estimating service demands and to design the service capacity to accommodate these demands.
8. be able to utilize service systems management knowledge to solve real world problems.

COURSE REQUIREMENTS

Instructional / Methods / Activities Assessments
This course utilizes lectures and assignments to assist students in achieving the course learning outcomes. The assessment criteria for the stated student learning outcomes will include assignments, projects, presentations and two exams.

Problems will be assigned to support the instructional material (either in-class assignment or homework assignment). Students will have an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice. Students will have an ability to communicate effectively through various presentations.

Final grades in this course will be based on the following scale:

A = 90%-100%

B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

The *syllabus/schedule are subject to change.*

Grading:

Exam-1		20%
Exam-2		20%
Exam-3		20%
Team Project		20%
• *Presentation*	*5%*	
• *Report*	*15%*	
Class Participation		20%
• *Assignments (in class and take-home assignments)*	*10%*	
• *Attendance and assignments' presentations*	*5%*	
• *Project Peer Evaluation Assignment*	*5%*	

Class Attendance Requirement (two lateness = one absence)

# of Absence	0 – 2	3	4	5	6	7
Absence Penalties: Point Deduction of overall grade	0	- 3	- 8	- 15	- 30	F

Class Participation:

It is expected that the student will do these assignments for the student's benefit. Each student will be expected to prepare these assignments, presentations of solutions of the assignments are expected and will count toward class participation grades. Late submittals will not be accepted. Students are expected to participate in class presentations and any assignment solution. Each student will be expected to present if called on by the instructor their understanding of solutions to assigned problem to the class. Non participation in these presentations will be counted against the student's Class Participation component of the course grade (assignments plus attendance for a total of 15%).

TECHNOLOGY REQUIREMENTS

The following technologies will be required for this class.

- A scientific calculator for exams.
- Microsoft Word, Excel, PowerPoint.
- Excel Solver
- LINGO

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

1. One day late assignment is accepted with a 20% grade deduction; after this, no assignment will be accepted.

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2. You will be expected to do all the readings throughout the semester.
3. Each exam will be given in class. Exams are closed book and notes (necessary formulas will be provided on a separate page). Students will need a scientific calculator for exams. Cell phones are not acceptable as a calculator. Use of unauthorized aids on exams will result in a grade of zero.
4. There will be one design assignment and it will be a group project.
5. The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.
6. No make-up exams will be permitted unless official documentation for absences is provided (e.g., death in the family, illness).

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.
http://www.tamuc.edu/admissions/registrar/documents/studentGuidebook.pdf

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette
http://www.albion.com/netiquette/corerules.html

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01.
http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce
Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: StudentDisabilityServices@tamuc.edu

Website: Office of Student Disability Resources and Services

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

The *syllabus/schedule are subject to change.*

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

Week	Topics	Reading
Week-1	Service Economy	Ch. 1
Week-2	Service Quality Lean 6 Sigma Supplementary Handout	Ch. 6
Week-3	Service Process Improvement Service Strategy	Ch. 7 Ch. 2
Week-4	Service Strategy Cont. **Exam-1**	Ch. 2
Week-5	New Service Development Project Definition and Guidelines	Ch. 3 Project Development
Week-6	Service Facility Location OR-II Supplementary Assignment	Ch. 8
Week-7	Exam-1 Review **Exam-2**	Handout
Week-8	Managing Capacity and Demand OR-II Supplementary Assignment	Ch. 11
Week-9	***Spring Break***	
Week-10	Managing Capacity and Demand Cont.	Ch. 11
Week-11	Managing Waiting Lines	Ch. 12
Week-12	Exam 2 Review **Exam 3**	Handout
Week-13	Project Progress Presentation	Project Communication
Week-14	Term Project	Project Execution
Week-15	Term Project Final Presentation Term Project Peer Evaluation Assignment	Project Closure
Week-16	**Final Report Submission**	

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