

Approval Chart for Curriculum Changes

A = Approve I = Information Item¹ R = Advise & Respond²

Course Number ENGR 353 or Degree Plan(s) _____

State the requested change and reason. A memo may be attached if more space is necessary.

See Attached

Circle the number that corresponds to the requested change. Degree plan changes are on the second page.

Change to a Course		Dept./School	College Academic	Deans	COUNCIL ¹				Provost	President
					TEC	UGEC	UUAC	GRAD		
1.	Title (description unchanged)	A	A	A		I			I	I
2.	Description (not affecting content)	A	A	A		I			I	I
3.	Course term(s)	A	I	A		I			I	I
4.	Content (substantive change)	A	A	A		I			A	A
5.	Number of hours (lecture, lab, contact)	A	A	A		A			A	A
6.	Course number within the hundred	A	A	I		I			I	I
7.	Course number beyond the hundred	A	A	A		A			A	A
8.	Prerequisites	A	A	A		I			I	I
9.	Course fee(s)	A	--	A		--			A	I
10.	From U to G or G to U	A	A	A		A			A	A
11.	Cross list with another department: U or G level	A	A	A		A			A	A
12.	Department of record	A	A	A		A			A	A
13.	Open or close a course	A	A	A		A			A	A
14.	New course — See website for application and process. This change includes combining or splitting a course(s).	A	A	A		A			A	A

Note: When an academic unit does not have a council, the UGEC and/or UUAC will serve as its academic council, depending on the nature of the issue.

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		COUNCIL ³						Provost	Faculty	President	Board of Trustees	
	Change to a Degree Plan	Dept./School	College Academic	Deans	TEC	UGEC	UUAC					GRAD
1.	University Requirements — Change in approved course content ⁶	A	A	A		A			A	--	A	--
2.	University Requirements — Add or drop a required course from the University Requirements chart ⁶	A	A	A		A			A	A	A	--
3.	University Requirements — Add or drop a course from a menu within the University Requirements ⁶	A	--	--		A			A	--	A	--
4.	University Requirements — Change hours within a menu on the University Requirements chart ⁶	A	A	A		A			A	A	A	--
5.	Major — Revision of major ^{4,5}	A	A	A		A			A	--	A	--
6.	Major — Adopt or change admission requirements	A	A	A		A			A	--	A	--
7.	Major — Add ^{4,5}	A	A	A		A			A	A	A	I
8.	Major — Discontinue (proposed by the department or college)	A	A	A		A			A	A	A	I
9.	Major — Discontinue (proposed by the Provost)	See below.										
10.	GPA — Revise major or cumulative requirement	A	A	A		A			A	A	A	--
11.	Minor — Revise course selection	A	A	A		I			I	--	I	--
12.	Minor — Add	A	A	A		A			A	--	A	--
13.	Minor — Discontinue (proposed by the department or college)	A	A	A		A			A	--	A	--
14.	Minor — Discontinue (proposed by the Provost)	See below.										
15.	Degree — Add	A	A	A		A			A	A	A	I
16.	Degree — Discontinue (proposed by the department or college)	A	A	A		A			A	A	A	I
17.	Degree — Discontinue (proposed by the Provost)	See below.										
18.	Any change to a graduate degree program	A	A	A		A			A	--	A	--

Provost-Proposed Change		COUNCIL ³						Provost	Faculty	President	Board of Trustees
		Department	Dean	TEC	UUAC	Graduate					
1.	Major/Graduate Program — Discontinue (proposed by the Provost)	A	R	R		A			A	A	I
2.	Minor — Discontinue (proposed by the Provost)	A	R	R		A			--	A	--
3.	Degree — Discontinue (proposed by the Provost)	A	R	R		A			A	A	I

Approval Chart for Curriculum Changes

A = Approve I= Information Item¹ R= Advise & Respond²

COUNCIL ³										
	Change to the Catalog Information	Dept./School	College Academic	Deans	UGEC	UUAC	GRAD	Provost	Faculty	President
1.	General requirements for graduation including course requirements that are common to all majors for all degrees ⁷	--	--	--		A		A	A	A
2.	Admission requirements	--	--	--		A		A	A	A
3.	Policies governing academic probation and suspension	--	--	--		A		A	A	A
4.	Requirements for graduating with honors	--	--	--		A		A	A	A
5.	Other academic policy changes	--	--	--		A		A	--	A

¹ Councils may request additional information about "Information" items. These items are approved as "Consent Agenda."

² The Dean and Department should respond to the Provost's recommendation to close a program in writing. Advise & Respond (R) requires that the voting body should receive the written responses at least one week prior to the vote.

³ All courses that meet University Requirements for general education must go through UGEC. Courses or degrees offered only to students seeking teacher certification must go through the Teacher Education Council. All undergraduate changes must go before the UUAC. All graduate degree plan changes must go through the Graduate Council.

⁴ A minimum of 30 hours is required for a major. A maximum is specified for each degree (e.g., BA, BS). The university minimum for elective hours is 6, unless the requirements of external accrediting bodies make it impossible.

⁵ Program or course changes that apply to any major that includes Teacher Certification will be reviewed by the college, the Teacher Education Council (TEC), and then the UUAC.

⁶ Courses that satisfy ACU's University Requirements (General Education) will normally have lower-level numbering, be free of prerequisites and co-requisites, appeal to more than one or two majors, and "not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession" (SACS 2.7.3). Departments may request exceptions to the first three criteria.

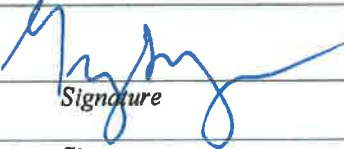
⁷ The UUAC approved the clarification that "general requirements for graduation" means the enumerated items in the "General Requirements for Bachelor's Degrees" section of the catalog.

Revised 3-8-17

Curriculum/Catalog Changes Signature Page

Department/School Chair(s)	
 <i>Signature</i>	<u>10/30/18</u> <i>Approval date</i>
<i>Signature</i>	<i>Approval date</i>

College Academic Council(s)	
 <i>Signature</i>	<u>12-7-2018</u> <i>Approval date</i>
<i>Signature</i>	<i>Approval date</i>

Dean(s)	
 <i>Signature</i>	<u>12/12/18</u> <i>Approval date</i>
<i>Signature</i>	<i>Approval date</i>

Teacher Education Council	
<i>Chair's signature</i>	<i>Approval date</i>

General Education Council	
<i>Chair's signature</i>	<i>Approval date</i>

Undergraduate Academic Council	
<i>Chair's signature</i>	<i>Approval date</i>

Graduate Council	
<i>Chair's signature</i>	<i>Approval date</i>

Provost	
<i>Signature</i>	<i>Approval date</i>

Faculty	
<i>Chair of faculty senate</i>	<i>Approval date</i>

President	
<i>Signature</i>	<i>Approval date</i>

Application for a New Course v10.6

Course ID <i>Subject and Number</i>	ENGR 353
Date APPROVED	
Date DENIED	

I. Systems and Catalog Information Complete each item.

1	Course Developer	Raymond Smith, LCMfgE
2	Course Teacher	Dr. Lori Houghtalen and/or Raymond Smith, LCMfgE
3	Course Title	Management Systems and Production Planning
4	Course Abbreviation (if title is over 30 characters)	
5	College	Arts & Sciences
6	Department	Engineering & Physics
7	Number of Credit Hours	3
8a.	Number of contact hours - lecture	3
8b.	Number of contact hours – lab/activity	0
9	Is the course for a fixed or variable number of credit hours?	fixed
10	Explanation for variable credit	Not applicable
11	Is the course repeatable for additional credit?	no
12	Maximum total number of credit hours a student can earn for this course	3
13	What type of course is this? (Select one. Please see Schedule Type definitions above.)	☒ Traditional lecture ☐ Traditional lab ☐ Traditional lecture/lab ☐ Experiential Learning ☐ Seminar ☐ Studio ☐ Thesis ☐ Dissertation

14	Instructor Workload	3 FTE
15	Grade Mode (check all appropriate):	☒ _x_Standard ☐ _Credit/No Credit (undergrad only)
16	Maximum Enrollment	18
17	Catalog Description (50 words or less)	Innovated approach to Production and Management Systems using Dr. Eli Goldratt's Theory of Constraints methods. Global Optimization verses Local Optimization strategy will be investigated. Alternate methods of systems will be covered.
18	List any prerequisites (course/s, test scores, class standing, major, etc.)	ENGR 377 Statistics, Junior standing in Engineering
19	List any co-requisites	none
20	If the course is cross listed, specify the Course ID(s); MUST have signature in Section V from all Department Chairs	Not applicable
21	Does this course have any special student costs?	☐ _x_ No ☐ _Yes (If yes, must attach a <u>completed</u> "Request to Add or Change Course Fees" form. Describe in section IV-F.)
22a	How frequently will the course be offered in the Fall ? All, even or odd years?	Even
22b	How frequently will the course be offered in the Spring ? All, even or odd years?	none
22c	How frequently will the course be offered in the Summer ? All, even or odd years?	none
23	First semester this course will be offered <i>New courses may not be taught under their approved course ID until they appear in the catalog, therefore, no earlier than the coming fall.</i>	Fall 2020
24	List course/s that should be deleted, (Also, include the last semester for course/s being deleted) <i>A course cannot be deleted when it is a requirement in a degree plan in any</i>	Not applicable

	department.	
25	Is this course required for a degree/s? <i>If "Yes," attach a revised degree plan(s) reflecting the placement of the new course.</i>	☐ No ☒ Yes
26	Should the addition of this course be retroactively applied to the degree plan it supports?	☒ No ☐ Yes Explanation:
27	Has this course been offered as a Special Topics course?	☒ No ☐ Yes <i>If "Yes," specify the Course ID and enrollment for each term it was taught. (Note: New courses are NOT required to be taught as Special Topics courses prior to being approved. However, a course may be taught once as Special Topics before it is proposed. See the Course Descriptions section of the Catalog for details.)</i>
28	List any courses in which the content overlaps the proposed course. (Course ID and Name) <i>Attach a statement from the Instructor/dept chair of the existing course justifying the new offering in Section IV-D.</i>	

II. Curriculum

1	Degree Plan Explanation of how this course affects degree requirements.	The course will be a depth elective for students pursuing an emphasis in Industrial Engineering within the Bachelor of Science in Engineering degree.
2	Justification State the justification for adding this course to the current curriculum. Represent the need.	Based upon recent (Fall '17 and Spring '18) feedback from the ACU Engineering Industrial Advisory Board, ACU admissions, recent ('17 and '18) senior exit surveys, and the American Society of Engineering Educators, additional depth in engineering disciplines is needed within our degree plan to increase competitiveness of ACU graduates in the job market. To prepare students for working in

		Industry as Industrial Engineer along with assisting Engineering & Physics faculty with their respective research projects.
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III. Course Design

1. Audience and Course Goal

1	Describe the intended audience, including prerequisite skills.	Industrial Engineering student wanting a career in manufacturing management in the area of Production Control.
2	State the overarching course goal(s) in performance terms.	To equipment engineering students in the area of Production Control and Manufacturing Management to see the production flow in a holistic manner and locally.

2. Competencies and Measurements

	Competency	Measurement
1	Determining the optimal production planning system based on the type of manufacturing system.	Assignment and Project
2	Recognizing and removing production constraints in a discrete production system	Case Studies and Project
3	Developing Production Metrics for a Manufacturing System	Case Studies and Project
4		
5		
6		
7		
8		
9		

3. Text and Resources

1. Give the full publication information of the textbook/s and other required resources and outside readings.

2. For **combined undergraduate/graduate** courses, make two lists:

a. full publication information; label **Undergraduate**.

b. full publication information; label **Graduate**. Indicate number of pages required.

Undergraduate: The Goal: A Process of Ongoing Improvement, Dr. Eli Goldratt, 3rd Revised Edition, Routledge, ISBN 13: 9780566086649

The Constraint Management Handbook, James F. Cox, III and Michael S. Spencer, CRC Press, ISBN: 1-57444-060-8

IV. Supporting Documentation

Supporting documents must accompany proposal prior to preliminary approval by chair and dean.

1	Library — Submit new course application and syllabus to the Dean of the Library. Consult with the director and establish a deadline for completion of the library report. Attach the signed copy of the Library report.
2	Instructional Design — The application and syllabus must be reviewed by the Adams Center. Attach a copy of the Adams Center Review Letter.
3	Content Overlap — Include one document for each course you listed in Section I-I. Attach statement from instructor/dept chair of existing course justifying the new offering.
4	Departmental Resources — List the resources that support the course and are available only through the department, if applicable. Attach the list of the holdings and the location/s.
5	Resources — List resources (other than library or departmental resources) that are needed to support this course (computers, lab equipment, other technology, etc.). Attach a complete list of all items and indicate possible sources or estimated cost of each. List the sources of any needed funds.
6	Expenses — List additional expenses needed to implement this course (full-time or part-time faculty, graduate or lab assistants, student employees, travel, special student costs, room renovation, storage facility, etc.). Attach a complete list of all items, the estimated cost of each and the source of the funds.
7	Justification — Attach all documents referred to in Section II-2
8	Syllabus — Attach the syllabus for the course based upon the anticipated first-semester offering.
9	Provide documentation for all additional attachments here

V. Preliminary Approvals

All supporting documentation has been assembled and attached to this application. I believe this course is ready to be presented to appropriate councils. We have a plan to fund this new course.

Course Number and Name ENGR 353

Primary Department


Department Chair

10/30/18
Date

Dean of the College

Date

Cross-listing Department *Add more lines if multiple departments are cross-listing*

Department Chair

Date

Dean of the College

Date

Cross-listing Department *Add more lines if multiple departments are cross-listing*

Department Chair

Date

Dean of the College

Date

VI. Actions *Place all actions on one page.*

Course ID: ENGR 353 Management Systems and Production Planning

Course Title: Management Systems and Production Planning

1. College Academic Council: (for all courses)

Note: Insert additional lines for College Academic Council action for each college involved in cross-listed courses.

Approved _____ Denied _____
College Dean or Director Date _____

Approved _____ Denied _____
College Dean or Director Date _____

2. Graduate Council: (for graduate level courses)

Approved _____ Denied _____
Dean of Graduate School Date _____

3. Teacher Education Council: (when applicable)

Approved _____ Denied _____
TEC Chair Date _____

4. University General Education Council: (when applicable)

Approved _____ Denied _____
Provost's designee Date _____

5. University Undergraduate Academic Council: (*undergraduate level courses*)

Approved _____ Denied _____
Vice Provost Date _____

6. Academic Provost: (for all courses)

Approved _____ Denied _____
Provost Date _____

7. President of the University: (for all courses)

Approved _____ Denied _____
President Date _____

Attach notes, comments, or conditions from appropriate councils:

October 18, 2018

Professor Raymond Smith
Ray.smith@acu.edu
325-674-6609

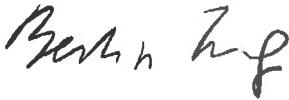
Re: Review of ENGR353

Dear Professor Smith,

Thank you for submitting ENGR353: Management Systems and Production Planning. I have reviewed it and found it compliant with the ACU Syllabus Guidelines. Thank you very much for working with me through this process and making changes that we discussed.

Please note that this letter is not meant to be a final approval in the course application process. Instead it is intended as a reference, which will be read by your department chair and members of the council, who may also have questions or comments of their own.

If you have any questions, please feel free to let me know. Please also let me know if we can be of any help in the design and facilitation of this course.

A handwritten signature in black ink, appearing to read "Ben H. Ziegler". The signature is fluid and cursive, with the first name "Ben" and last name "Ziegler" clearly distinguishable.

Director of Instructional Design, Adams Center

ABILENE CHRISTIAN UNIVERSITY

LIBRARY

M E M O R A N D U M

DATE: 16:03
TO: Ray Smith
FROM: Mark McCallon, Associate Dean for Library Services
RE: New Course Proposal, ENGR 353 – Management Systems and Production Planning

The library has examined the course application and syllabus and is able to support the proposed course. Please contact Erica Pye (exp10a@acu.edu) , Librarian Liaison to the Department of Engineering and Physics, if additional library resources are needed for the course. Thank you for letting us review the course proposal.

proposed courses in the IE emphasis in engineering

Don Pope <dnpp00a@acu.edu>

Thu, Oct 25, 2018 at 8:28 AM

To: Mark Phillips <mhp04a@acu.edu>, Lori Houghtalen <lori.houghtalen@acu.edu>

Mark and Lori-

Regarding the proposed ENGR 352 Optimizaiton course, there is little practical overlap with our MGMT 345 Intro to Management Science. The students in our course are senior MGMT majors and so the class is taught with a rather non-math approach and is a totally different audience. However, Lori, check on the overlap with MATH 334 Linear Programming. That seems to be a rather direct overlap if they still teach that.

Regarding ENGR 353 Management Systems and Production Planning, I envision your teaching that in a very different manner than our MGMT 331 Operations Management and MGMT 452 Logistics & Supply Chain Management (which we may never teach again). Again, our approach is much less mathematical than yours, although MGMT 331 would be an excellent course for your students to take.

Another course of ours which would be a great topic for yours would be MGMT 342 Total Quality Management, but, we are also capacity constrained on that course and may not offer it. Our course in Project Management has also not been taught in quite a while.

The courses that we do actually teach often, in addition to MGMT 331, which would be great electives for your IE emphasis would be:

- IS 410 Enterprise Resource Planning Systems (teaches SAP software)
- IS/MKTG 432 Data Mining

I hope this helps.

Blessings

Don Pope



ENGR 353 Management Systems and Production Planning Fall 2020

1. Course number and name

ENGR 353 Management Systems and Production Planning

2. Credits and contact hours

3

3. Instructor's or course coordinator's name

a. Instructor

Dr. Lori Houghtalen and/or Raymond Smith, LCMfgE

b. Course coordinator

Raymond Smith, LCMfgE

4. Text book, title, author, and year

The Goal: A Process of Ongoing Improvement, Dr. Eli Goldratt, 3rd Revised Edition,
Routledge, ISBN 13: 9780566086649
The Constraint Management Handbook, James F. Cox, III and Michael S. Spencer, CRC
Press, ISBN: 1-57444-060-8

a. other REQUIRED supplemental materials

None

b. other RECOMMENDED supplemental materials

None

5. Specific course information (catalog description)

a. brief description of the content of the course (catalog description)

Ideal for engineering students who are interested in the area of Production Control and Manufacturing Management. Content of course is designed to assist student to see the production flow in a holistic manner.



ENGR 353 Management Systems and Production Planning Fall 2020

b. prerequisites or co-requisites

Student of the Department of Engineering and Physics

c. indicate whether a required, elective, or selected elective course in the program

Selected Elective

6. Specific goals for the course

a. Specific outcomes of instruction

By the end of this course students will be able to: 1.) determine the production constraints and remove them from the production system. 2.) develop clearer production metrics and reporting. 3) develop through put reporting that the organization supports.

b. Explicitly indicate which of the student outcomes listed in ABET Criterion 3 or any other outcomes are addressed by the course.

(1.) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
(7.) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

7. Brief list of topics to be covered

- Organizational Function and Structure
- View the flow of materials through a production system
- Recognize and remove constraints
- Financial Reporting and Managerial Accounting Control

8. Records management

• **Prepared by:**

Raymond Smith, LCMfgE

• **Date prepared:**

8 October 2018

• **Date reviewed:**



ENGR 353 Management Systems and Production Planning Fall 2020

Class Meeting Times and Location

8:00 am to 8:50 am Monday Wednesday Friday OSC Room 365

Required Text

The required text for this course is The Goal: A Process of Ongoing Improvement, Dr. Eli Goldratt, 3rd Revised Edition, Routledge, ISBN 13: 9780566086649

The Constraint Management Handbook, James F. Cox, III and Michael S. Spencer, CRC Press, ISBN: 1-57444-060-8

Intended Audience

This is a depth elective course for an Engineering major interested in Industrial Engineering and intended to be completed during their Junior year.

Contact Information Name: Raymond Smith, LCMfgE, MEM

Office: OSC Room 137C

Phone: 325-674-6609

Email: ray.smith@acu.edu

Office Hours: MWF 8:00 to 9:00 am TTH 8:00 to 9:00 am

I have an open door policy; if my door is open you are welcome to come in. The times listed above are when I anticipate being in my office and will make every effort to be available. At times I have to be off campus or in meetings out of my office due to other departmental and campus responsibilities; in the event you need me and do not find me in my office please send me an meeting request with a suggested meeting (after you have consulted my schedule post on my office door) and we can set up a meeting as soon as possible.

Teaching Philosophy

Engineering is a well-respected profession. The public entrusts engineers to be honest, competent, and ethical. Many codes of ethics for these fields indicate that the commitment to protecting the health, safety, and welfare of the public is of paramount importance. These values are in harmony with Christian principles and ideals. Christian engineers should be honest (Matthew 5:37), work hard to ensure competency (Colossians 3:23), and put the public's interest ahead of his or her own (Luke 6:31). In light of these principles, this course will be taught such that you will gain an appreciation for the professional nature of engineering. It will be taught so as to give you every opportunity to begin to develop competency in these fields. This will require homework, quizzes, tests, and group discussion. The instructor especially encourages the discussion of topics that would bear on integrating faith and professional responsibilities (cheating on licensure exams, environmental laws and employment opportunities in developing nations, etc.)

Learning Objectives

The activities of the course support the assessment of the following ABET Outcomes: Criterion 3 (4). an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

(5) an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

Academic Integrity Policy



ENGR 353 Management Systems and Production Planning Fall 2020

Academic integrity is defined as academic work completed as assigned for each class by the individual or group responsible for the work. Violations of academic integrity and other forms of cheating involve the intention to deceive, mislead, or misrepresent and therefore, are a form of lying. Such actions are contrary to behavioral norms that flow from the nature of God. Academic misconduct includes, but is not limited to, the following: 1) Failure to give credit to sources used in a work in an attempt to present the work as one's own, 2) Submission of papers or projects obtained from another source (e.g., research service or club paper file) as one's own, and 3) Falsifying information orally or in writing. Academic misconduct may result in, but is not limited to, a zero on the assignment and/or an F in the course. Additionally, the department chair, Dean of the College of Arts and Sciences, and the Dean of Student Life will be notified. See the full university policy, including how to appeal a decision, by following this link: <http://www.acu.edu/campusoffices/studentlife/judicialDocuments/AcademicIntegrityPolicy.pdf>.

The use of Chegg and similar homework solution sites is a violation of academic integrity in at least two ways. First, the solutions you find there were generally made available under conditions that they should not be posted or shared except as required with current students. Second, solutions copied from or aided by consulting a homework solution site and then submitted for credit are not truly the work of the person submitting them for credit.

ADA Compliance Statement

"Abilene Christian University is dedicated to removing barriers and opening access for students with disabilities in compliance with ADA and Section 504 of the Rehabilitation Act. The Alpha Scholars Program facilitates disability accommodations in cooperation with instructors. In order to receive accommodations, you must be registered with Alpha Scholars Program, and you must complete a specific request for each class in which you need accommodations. If you have a documented disability and wish to discuss academic accommodations, please call our office directly at 325-674-2667."

Title IX

"As a Christian community, Abilene Christian University has committed itself, unequivocally, to ensuring a working and learning environment in which the dignity of every individual is respected. Harassment is defined as unwelcome behavior or conduct based on sex, religion, race, age, color, national origin, veteran's status, disability, or any other characteristic protected by law when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, education, or participation in University programs or activities, (2) submission to, or rejection of, such conduct by an individual is used as the basis for a decision affecting an individual's employment, education, or participation in University programs or activities, or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive environment for work, education, or participation in a University program or activity. See the full university policy by following [this link](#).



ENGR 353 Management Systems and Production Planning Fall 2020

Attendance

Attendance is expected at all class sessions. It is also expected that you arrive promptly. If you are absent or tardy it will negatively affect your course grades. Instructor reserves the right to remove a student from the class role and participation for excessive absences and/or disruptive behavior.

Grading Policy

Assignments

All assignments will be writing assignments using Times New Roman 12 point font and standard margins. The Course Schedule below is a guide for the semester. Students should review Canvas for any modifications and/or changes to the Course Schedule. All assignments will be due at the beginning of the scheduled class meeting time. Late work will not be accepted.

Projects

All Projects will be writing assignments using Times New Roman 12 point font and standard margins. The Course Schedule below is a guide for the semester. Students should review Canvas for any modifications and/or changes to the Course Schedule. All projects will be due at the beginning of the scheduled class meeting time. Late Projects will not be graded.

Final Exam

The final exam is scheduled and posted on the ACU Website.

Professionalism

Engineers are expected to behave in a professional manner. For the purposes of this course, professionalism means that students show up, are prepared, are engaged, treat peers and the instructor with respect (both verbally and in written communication), and do not engage in disruptive classroom activities. Disruptive activities include but are not limited to: inappropriate use of phones, computers, tablets, etc.; "sidebar" conversations during class discussions or presentations, arriving late, leaving or packing up early, and repeatedly exiting and entering the classroom. If you have a question please be considerate of your fellow classmates.

Calculation of Grade

Assignments.....	45%
2 Project(s).....	25 %
Final Exam.....	15 %
Professionalism.....	15%

90% and above	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
59% and below	F

Cell Phones

Cell Phones should be placed on 'Silent' mode while in class. In the case of an emergency you may answer your phone and quietly leave the room and return when you have finished your call. It is not in your best interest to text while in class.

Class Room Culture

No food or drink in the class room.



ENGR 353 Management Systems and Production Planning Fall 2020

Competencies and Measurements

	Competency	Measurement
1	Determining the optimal production planning system based on the type of manufacturing system.	Assignment and Project
2	Recognizing and removing production constraints in a discrete production system	Case Studies and Project
3	Developing Production Metrics for a Manufacturing System	Case Studies and Project

The mission of ACU

To educate students for Christian service and leadership throughout the world.

The mission of the College of Arts and Sciences

To educate students for worldwide Christian service and leadership through programs of study and other learning experiences that blend a liberal arts education with professional and career education.

The mission of the Engineering and Physics Department The ACU engineering program strongly supports the university's mission of educating students for Christian service and leadership throughout the world. In support of this mission, ACU engineering graduates will attain: a deep and broad understanding of engineering principles and practices as evidenced by professional employment, continued professional development, and graduate study in engineering or other professional fields. an extensive knowledge of the innovative design processes unique to engineering professionals as demonstrated by using critical thinking skills to contribute to the scientific and technical literature, patents and intellectual property, professional societies, and creative designs. a thorough understanding of Christian service and leadership as shown in their commitments to professionalism, ethics, and service and leadership within the engineering profession, the church, and society.



ENGR 353 Management Systems and Production Planning Fall 2020

Course Schedule

Week Number	Topic	Deliverables	Due Date
1	What is Constraint Management ?	None	
2	The Production Planning and Control Framework	Assignment of Case Studies Review of Production Planning and Control failures	Week 4
3	Characteristics of Classical Methods of Production Planning and Control	Assignment of Case Studies Review of Classical Methods of Production Planning and Control failures	Week 5
4	Characteristics of MRP Production Methods of Planning and Control	Assignment of Case Studies Review of MRP Production Methods of Planning and Control failures	Week 6
5	Characteristics of Just-In-Time Production	Assignment of Case Studies Review of Just-in-Time Production Planning and Control failures	Week 7
6	Creating the Constraints Management Synthesis Process	Project: Research a manufacturing company that used a traditional Production Planning and Control system then switched to a Constraints Management System.	Week 9
7	The Five-Step Focusing Process		
8	The Drum-Buffer-Rope Scheduling Method		
9	Assignment of Case Studies of Constraints Management Facilities		
10	Performance Measurement and Core Problems		
11	Goldratt's Thinking Processes	Project: Research a manufacturing company that used a traditional ERP system then switched to a Constraints Management System.	Week 14
12	"The Goal" reading and class discussion		
13	"The Goal" reading and class discussion		



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14	"The Goal" reading and class discussion	Assignment of main take-aways from the reading and discussion of the book "The Goal"	Week 16
15	Special Topics in Manufacturing Systems Management		
16	Special Topics in Manufacturing Systems Management		

Instructor reserves the right to modify the course schedule as necessary. Students will be informed via Canvas when such changes have occurred.

See Canvas for additional instructions and/or assignment information.