



SCHOOL OF ENGINEERING AND APPLIED SCIENCE

AMS 540 – Theory of constraints

Spring 2020

SECTION 730-Online class

INSTRUCTOR INFORMATION

Dr. Asghar Rezasoltani

Office: EST 217, Phone 270-745-2462

Office Hours: Tuesday-Thursday 10:00 AM- 11:30 AM or by appointment

Email: asghar.rezasoltani@wku.edu

COURSE INFORMATION

Credit Hours: 3

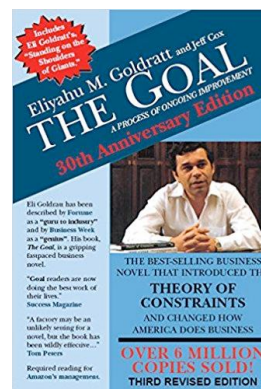
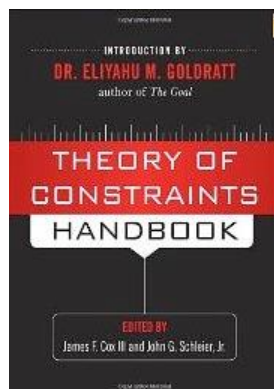
Course Description:

Concepts of theory of constraints (TOC) pertaining to drum-buffer-rope, operations analysis, cost management, decision making and related areas. TOC management strategies and thinking processes applied to business problems.

Prerequisite: Admitted to MS Engineering Technology Management or Lean Sigma Certificate.

Required Texts:

- Cox, III, J.F., & Schleier, J. G. (Eds.). (2010). Theory of constraints handbook. New York: McGraw-Hill. ISBN 978-0-07-166554-4
Moreover, there will be readings posted online as directed by the instructor.
- Goldratt, E. M., & Cox, J. F. (1992). The goal: A process of ongoing improvement, (2nd rev. ed.). Great Barrington: MA; North River Press. ISBN: 978-0-88- 427061-4



Course Objectives / Learning Outcomes & Overview:

Upon completion of the course, the student should be able to:

Define and describe the Theory of Constraints (TOC)

- Evaluate the application of TOC to projects, supply chains, corporate strategy, physical processes, services, resistance to change, performance measurement, and thinking processes
- Analyze lean and six sigma when combined with TOC
- Assess drum-buffer-rope and VATI analysis
- Defend the rationale for leverage, throughput, and systems thinking

COURSE STRUCTURE AND DESIGN

This is a three-unit graduate-level course in advanced TOC concepts. It is designed to provide the student with conceptual and practical knowledge and skills related to continuous improvement in business and technical systems. Specifically, the course addresses the application of TOC in a variety of contexts with regard to synergy with other business and engineering management philosophies such as quality, risk, lean, and six sigma.

Assigned Readings

The textbooks and supplemental readings provide the content to support your success in completing homework assignment, quizzes, discussions, final project.

Quizzes and Assignments

Quizzes will be given from assigned textbook chapters and assigned supplemental materials associated with the given topic.

Discussions

Online sessions will be geared to address questions and thoughts regarding the readings, and discuss ideas and theories. These discussions will be graded for participation, content, writing, and sources.

Grading

Course Grade Distribution		Grade Scale	
Homework Assignments and Quizzes	30%	A, Outstanding	90-100%
Discussion Board Contributions	10%	B, Commendable	80-89.99%
Mid-Term Exam or Project	30%	C, Competent	70-79.99%
Final	30%	D, Deficient	60-69.99%
Total	100%	F, Unacceptable	0-59.99%

Expectations

All deliverables should be completed in order to pass the course. All assignments must be submitted on time-for this course. Any assignments submitted after scheduled due dates will not be accepted unless prior arrangements have been made with the instructor. Students should work independently on

assignments unless the instructor gives prior permission for collaboration. Presenting the words, ideas, or expressions of another person in any form and claiming them as one's own is plagiarism and will not be tolerated. The claim of ignorance is no excuse.

Late Work

As a general rule, no late work is accepted. If you think you need an extension, you must contact me before the assignment is due. In some cases, I may grant a resubmission of work that does not meet the minimum standard. However, students should expect a reduction in the grade for late or resubmitted work. I realize that some life circumstances may be unavoidable, but recognize that you can always drop a course for extenuating circumstances such as the death of a family member. All other circumstances are per my discretion. Family or work commitments and schedule conflicts are generally not good reason for extensions.

E-Mail:

Subject line must contain the course number and few words issue.

Example: AMS 588- My Project

E-mail is a professional conversation with your professor. *It is not texting.* I expect you to present your questions and/concerns in a professional manor. *Unprofessional emails will not get a response.*

General communication and expectations

Students will communicate with the instructor using the learning management system Blackboard or other communication media such as e-mail. My availability during the week is from 8:00 AM to 4:00 PM CST M-F with limited availability on the weekends. *An unprofessional e-mail will not get a response.*

Access to a late-model computer with standard business software and an Internet connection is required. This is a paperless course module. This course module and all associated communication within or as part of should adhere to the WKU Information Technology Acceptable Use Policy. All assignments and related documents will be submitted on-line via Blackboard. Students must make prior arrangements before submitting hard copy reports or papers. If you have problems transmitting information, telephone or e-mail immediately, and we'll get the problem solved

File Naming:

All files submitted for grading should have the following file naming format:

Course number_Last_First_Assignment.ext (no spaces)

Example: AMS 588_Rezasoltani_Asghar_Assignment1.pdf

Academic Honesty:

All Western Kentucky University policies are in effect. All your work must be your own, unless I authorize collaboration, in which case you must, in writing, acknowledge the help you have received. Presenting the words, ideas, or expressions of another person in any form and claiming them as one's own is plagiarism and will not be tolerated. The claim of ignorance is no excuse. (See academic offenses in the WKU student handbook.)

ADA Accommodation Statement

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745- 5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Title IX Misconduct/Assault Statement:

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at

<https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and
Discrimination and Harassment Policy (#0.2040) at

https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are “Responsible Employees” of the University and MUST report what you share to WKU’s Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU’s Counseling and Testing Center at 270-745-3159.

Ogden Student Course Attendance Statement

The faculty and staff of Ogden College of Science and Engineering are committed to providing you with learning experiences and opportunities. You must assume ownership of your education and be an active participant in the classroom and laboratory to take advantage of these opportunities. Active participation requires you to attend. Scientific studies have shown that attendance during scheduled classroom and laboratory meetings is directly correlated to your performance on assignments and exams and the potential to earn higher grades. Additionally, if you do not regularly attend class, you are missing important information about course topics, due dates, and assignment details that are crucial to your success in the course. Therefore, as a student enrolled in an Ogden course, you are expected to attend every class meeting and to inform your instructor regarding the reasons for any absences as soon as practical. Your instructor may incorporate class attendance/participation as part of the grading criteria.