STATE UNIVERSITY OF NEW YORK COLLEGE OF TECHNOLOGY CANTON, NEW YORK



MASTER SYLLABUS

COURSE NUMBER – COURSE NAME CMGT 403 – Operations Management

Created by: Joe Reilly

Updated by:

Canino School of Engineering Technology

Department: Civil and Construction Technology

Semester/Year: Fall 2020

A. <u>TITLE</u>: Operations Management

B. <u>COURSE NUMBER</u>: CMGT 403

C. <u>CREDIT HOURS</u>: (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 3
Lecture Hours: 3 per week
Lab Hours: per week
Other: per week

Course Length: 15 Weeks

D. <u>WRITING INTENSIVE COURSE</u>: Yes \square No \boxtimes

E. <u>GER CATEGORY</u>: None: Yes: GER *If course satisfies more than one*: GER

F. <u>SEMESTER(S) OFFERED</u>: Fall Spring Fall & Spring

G. <u>COURSE DESCRIPTION</u>:

This course provides an introduction to operations management (OM) specific to a construction organization. This course aims to familiarize students with the major operational issues that confront construction managers including efficient planning of the work, productivity, materials management and quality issues. Case studies provide examples of successful OM practices and pitfalls of poor OM.

H. <u>**PRE-REQUISITES</u>**: None \Box Yes \boxtimes If yes, list below:</u>

CMGT 300 Construction Management or CONS 274 Construction Management; and CMGT 301 Scheduling and Planning, or permission of the instructor

<u>CO-REQUISITES</u>: None Yes I If yes, list below:

I. <u>STUDENT LEARNING OUTCOMES</u>: (see key below)

By the end of this course, the student will be able to:

Course Student Learning Outcome [SLO]	Program Student Learning Outcome	<u>GER</u> [If Applicable]	<u>ISLO & SUBSETS</u>
1.Identify key issues of management operations preented by a site plan	[PSLO] SO 5		5-Ind, Prof, Disc, Know Skills Subset ISLO Subset ISLO Subset Subset
2.Manipulate a construction project schedule to optimize productivity in the face of proposed interruptions	SO 5		5-Ind, Prof, Disc, Know Skills Subset ISLO Subset ISLO Subset Subset
3. List and discuss methods used to manage material streams on a construction project	SO 5		5-Ind, Prof, Disc, Know Skills Subset ISLO Subset ISLO Subset Subset
4. Cite and discuss the typical sources of waste in a construction project and sustainable options for dealing with these	SO 5		5-Ind, Prof, Disc, Know Skills Subset ISLO Subset ISLO Subset Subset
5. Compute the cost of an accident and recognize the value of safety	SO 5		5-Ind, Prof, Disc, Know Skills Subset ISLO Subset ISLO Subset Subset
6. Explain how quality is maintained in construction operations	SO 5		5-Ind, Prof, Disc, Know Skills Subset ISLO Subset ISLO Subset Subset
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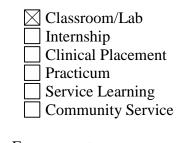
KEY	Institutional Student Learning Outcomes [ISLO 1 – 5]		
ISLO	ISLO & Subsets		
#			
1	Communication Skills		
	Oral [O], Written [W]		
2	Critical Thinking		
	Critical Analysis [CA], Inquiry & Analysis [IA], Problem		
	Solving [PS]		
3	Foundational Skills		
	Information Management [IM], Quantitative Lit,/Reasoning		
	[QTR]		
4	Social Responsibility		
	Ethical Reasoning [ER], Global Learning [GL],		
	Intercultural Knowledge [IK], Teamwork [T]		
5	Industry, Professional, Discipline Specific Knowledge and		
	Skills		

*Include program objectives if applicable. Please consult with Program Coordinator

APPLIED LEARNING COMPONENT: J.

Yes 🖂 No

If YES, select one or more of the following categories:



Civic Engagement Creative Works/Senior Project

Research

Entrepreneurship

(program, class, project)

K. <u>TEXTS</u>:

Operations Management for Construction 1st Edition by Chris March (Author) ISBN-13: 978-0415371131 ISBN-10: 0415371139

L. <u>REFERENCES</u>:

Jacobs, F.R. & R.B. Chase. (2010). Operations and Supply Chain Management (13th edition). Boston: McGraw-Hill Irwin.

G. Cachon and C. Terwiesch. Matching Supply with Demand: An Introduction to Operations Management (3rd Ed). McGraw-Hill. 2013

Y.A. Ozcan. Quantitative Methods in Health Care Management: Techniques and Applications (2nd Ed). Jossey-Bass. 2009

M. <u>EQUIPMENT</u>: None \boxtimes Needed:

N. **<u>GRADING METHOD</u>**: A-F

0. <u>SUGGESTED MEASUREMENT CRITERIA/METHODS</u>:

Exams Homework Quizzes Papers

P. <u>DETAILED COURSE OUTLINE</u>:

I. Intro to Construction Operations and Management Evaluating the Site Access Utilities Material Processing Security

II. Planning Execution of the Contract Bar Charts Precedence Diagrams Network Diagrams Resource Allocation Work Measurement and planning Health and Safety on the job site Cost impact of accidents Health and Safety training Risk Assessment

III. Waste Management

The cost of waste Recycling Disposal

IV. Material Management Materials Delivery and Timing Planning Storage

V. Supply Chain Management Definition Decision to subcontract

VI. Quality Management QC/QA TQM ISO 9000

VII. Case Studies

Q. <u>LABORATORY OUTLINE</u>: None X Yes