



# **COURSE SYLLABUS**

 ${\color{red} BUS~360} \\ {\color{blue} Principles~of~Production-Operations~Management} \\$ 

Fall 2019

## 1. Course Information

## 1.1. Instructor Information

Instructor:	Eduardo Rodriguez
Office:	CPS 416
Physical Office Hours:	Mo and We 11:00 -12:00 and 1:00 to 1:30 PM and by appointment
E-mail:	eduardo.rodriguez@uwsp.edu

## 1.2. Course Information

Course Description:	This class teaches quantitative management science techniques to solve business problems such as facility layout, process planning, work measurement, inventory control, quality control, and includes techniques such as linear programming and statistical process control. (See description in the UWSP Catalog)
Credits:	3
Prerequisites:	ACCT 211; ECON 111; 3 cr in statistics; MATH 109 or equiv.

## 1.3. Textbook & Course Materials

Required Text:	Operations Management: Sustainability and Supply Chain
	Management (12th Edition) Hardcover – Jan 21 2016 by Jay
	Heizer (Author), Barry Render (Author), Chuck Munson
	(Author)

## 1.4. Master Course Table

Week	Class date	Торіс	What to review from your book			Assignment	Exam	
1	4-Sep	Intro - Productivity Chapter 1	theory Table 1.2	page	example/ exercises	page		
	9-Sep	Productivity Chapter 1	Table 1.3	11	solved prob. 1.1&1.2	21		
		Operations and Strategy Chapter 2	Fig. 2.4	39	301VCu p100. 1.1Q1.2	2.1		
2	11 эср	operations and strategy enapter 2	Fig 2.5	41				
-			Table 2.1	45	example 2.1	48		
			Global operation	49	example booklet	10		
3	16-Sep 18-Sep	Project Management Chapter 3 Project Management Chapter 3	examples from the practice booklet only					
	23-Sep	Forecasting Chapter 4	time series models	112				
			Associative models		Example 1	114		
			Moving Averages		Example 2	115		
			Exponential Smoothing		Example 3	117		
4			Errors		Example 4	118		
-			Table 4.1	121				
	25-Sep	Forecasting Chapter 4	Exp.Smoothing+trend	122	Example 7	122		
			Regression	112	Example 8	125		
			Seasonal Index		Example 9&10	127-129		
ļ					Review OM example	142		
	30-Sep	Design of goods and services Chapter 5	Prod dev. Fig 5.3	167				
5			House of quality	166	example 1	168		
١	2-Oct	Design of goods and services Chapter 5	Quality sequence Fig 5.4	169			Project Submission 1	review 1
					Decision trees Example	183	110jecesusinission 1	iciicii 2
6		Prod. Portfolio-Linear Programming		Examples in Ex	ccel solver			
Ů	9-Oct	Prod. Portfolio-Linear Programming						
	14-Oct	Sustainability and Quality Chapter 6	TQM fig 6.2	257				
			Table 6.2	220				
			Fig. 6.5	225				
7			tools TQM Fig 6.6	226				
	16-Oct	Sustainability and Quality Chapter 6	Fig 6.7	227				
			Control charts		Example S1	250		
	21.0+	December 7	Fig 7.2	283	Example S2	252		
8	21-Oct	Process Strategy Chapter 7	Table 7.2	286				
8	23-Oct	Process Strategy Chapter 7	Comparing processes	286	Example 1	286		
	28-Oct	Frocess Strategy Chapter 7	companing processes	280	LXample 1	280		
9	30-Oct		Review				Project submission 2	review2
	4-Nov	Location Strategy Chapter 8	Table 8.4	346	Example2	346	,	
10			Centre of gravity	348	Example3			
	6-Nov	Location Strategy Chapter 8	Service Strategy Table 8.6	350	'			
İ	11-Nov	Layout Strategy Chapter 9	Types of layouts	370				
		'	Layout strategies table 9.1	371				
11			Process Layout		Example 1	380		I
			Fig 9.9 & 9.11	384-387				
	13-Nov	Layout Strategy Chapter 9	Staffing and balancing	384				
	18-Nov	Human Resources Mgmt. Chapter 10	Fig 10.1	411				
12			Fig 10.3	414				I
	20-Nov	Human Resources Mgmt. Chapter 10	Labor standards	420	Example 1	423		
	25-Nov	Supply Change Mgmt. Chapter 11	Decisions Supply Chain Tabl	446-449				
13			Risk and Tactics Table 11.3	450				
	27-Nov	Supply Change Mgmt. Chapter 11	scor Model Fig. 11.4 and tabl	464			Project submission 3	review3
I	2-Dec	Inventory Mgmt Chapter 12	ABC Analysis	491	Example 1	492		
14	4-Dec	Inventory Mgmt Chapter 12	Inventory models	495	Examples 3,4,5	498-500		
14			Reorder point	501	Example 7	502		
			Order Quantity Model	502	Example 8	504		
15	9-Dec		Review					
	11-Dec							
16	16-Dec	Final exam - Final exams week					Final Project submission	Full semester - Exam

## 1.5. Course Technology

Course Website:	The course is on Canvas and POM-QM V5
Other Websites:	
Course Delivery:	Face to face

UWSP Technology Support:

The Office of Information Technology (IT) provides a Service Desk to assist students with connecting to the Campus Network, virus and spyware removal, file recovery, equipment loan, and computer repair. You can contact the Service Desk via email at

## 2. LEARNING OUTCOMES

#### 2.1. Course Goals

The objective of this course is to study the methods used by operations and production managers to make decisions in a company's pursuit of its strategic goals and objectives. Mathematical and spreadsheet tools will be reviewed and or developed as needed.

The course aim is to provide students with an integrated study of the nature of business processes, analytics tools and practical applications to the business permanent improvement. In this course, the students will be able to design a business operation roadmap. This roadmap will allow the understanding and use of management methods to improve operations/production and to the means to add value to today's organizations.

## **2.2.** Course Learning Objectives

#### What will you learn?

The OM course brings you to the world of what is happening behind the scenes in organizations to create the offer and convert it into a sustainable competitive advantage. Keep in mind the search for the answers to questions: What are the reasons to admire some companies and what are they doing well? What is making a company a very strong player in the market? How can peoples solve issues to manage productivity, efficiency and customer's satisfaction? How companies create a good customer experience? Many important questions You will understand what is required and designed to offer products in supermarkets, devices/machines, computers, services, etc. I recommend you to spend some spare time to watch https://www.sciencechannel.com/tv-shows/how-its-made/

At the end of the course, you will

- Understand, Apply and Integrate Core Management concepts to improve the performance of organizations
- Demonstrate Critical Thinking, Problem-solving and Decision Making Skills for using appropriate tools and concepts
- Demonstrate selection and allocation Skills for problems, tools, and solutions
- Demonstrate the ability to perform different type of analysis under various business processes
- Explore the use of operations management methodologies for different business processes
- Provide value to the business through the guide of analytics work according to the area of specialization of people, problem and technology
- Develop a working knowledge base of terminology within the fields of operations/production and data modeling
- Explain the role of operations management plays in efficiency and effectiveness of meeting organizational goals
- Conduct and interpret quantitative models/spreadsheet analyses to support the business processes understanding
- Identify security, privacy, and ethical issues associated with operations management

• Evaluate the opportunities for global competitive advantage associated with the use of Operations Management development and improvement

## 2.3. Methodology

This course has as methodology aspects the following:

- The course will be taught with a combination of lectures and class discussions based on assigned readings, skill building exercises, application assignments, and group or individual case studies/company research. Students are encouraged to actively participate in class, ask questions, and stimulate the thinking of all those in the classroom. Oral presentations and written reports will also be required. Quizzes and Exams will be used to evaluate students' understanding of the course content.
- It is necessary for students to complete the assigned readings and/or other required tasks no later than the beginning of class on the corresponding due dates (see "Course Calendar"). Doing so is key to synthesizing the concepts from the lectures and the readings, performing well on the exams/quizzes, and participating meaningfully in class.

### 2.4. Academic Unit

**SBE Mission:** 

The UWSP School of Business and Economics educates and inspires students and prepares graduates for success in positions of leadership and responsibility. We serve the students, businesses, economy, and people of the greater central Wisconsin region. Our students achieve an understanding of regional opportunities that exist within the global economy. Evidence of our graduates' level of preparation will be found in their ability to:

- Analyze and solve business and economics problems
- Understand the opportunities and consequences associated with globalization
- Appreciate the importance of behaving professionally and ethically
- Communicate effectively

## 3. COURSE POLICIES

#### 3.1. Attendance

You will be responsible for anything that goes on in class.

#### 3.2. Late Work

Late work may not be accepted. If accepted, late work will lose 25% per calendar day

#### 3.3. Etiquette/Netiquette

POSITIVE LEARNING ENVIRONMENT. It is my goal to provide a safe and nurturing learning environment for all students. Therefore, breaches of classroom courtesy are defined as any

behaviors that are disruptive to the learning environment. The following examples provide a foundational description of classroom courtesy:

- Displaying respect for others is required at all times. It is not required that you share the perspectives of your classmates, but rather that you do not discredit their right to have their own opinion. Expressing alternate viewpoints is important, but this should be done in a collegial manner.
- Side discussions, listening to head phones, sleeping in class, and abusive language is considered disruptive behavior.
- No shouting, no profane language, no verbal or physical threats, no intimidation of any kind.
- Not arriving to class under the influence of any alcohol or drugs

Should you disagree with anything that occurs during class or feel uncomfortable with anything related to the course please discuss the matter with the instructor as soon as possible. If the source of unease or perceived injustice occurs during a particular class session, please speak with the instructor immediately after class. If you are unable to see the instructor after class, make an appointment to do so as soon as possible. The chain of command for addressing any grievances must be followed in order as follows: The Instructor > The School of Business & Economics Chairperson > The Dean of College of Professional Studies > The Associate Vice Chancellor for Teaching & Learning.

## 4. GRADING

### 4.1. Grading Scheme

Grading will start with a traditional 90, 80, 70 scale. Grades may be curved from there at the discretion of the professor. If curved, they generally place roughly the top 25% of the students with a A or A- and roughly 75% of students with a A, A-, B+, B or B-. I will use whichever system gives students the higher grade.

## 5. COURSEWORK

#### **5.1.** *Exams*

Three reviews each one 10% Final exam 15%

### 5.2. Events, class participation and quizzes

Smiley Professional Events (or Pro Events) (2) class participation and guizzes 10%

#### 5.1. Project

Three partial submissions-reports: First 10%; Second 10%; Third 10% Final project submission 15%

See the project description on Canvas site

### 5.2. Project Evaluation and schedule for submissions

See the section on Canvas

### 6. SCHEDULE

#### 6.1. Dates and Deadlines

The instructor will provide a tentative course schedule in a supplementary file. All provided course schedules are organized by week number in accordance with the official UWSP Academic calendar. A direct link to the UWSP Academic calendar can be found here:

https://www.uwsp.edu/acadaff/Pages/AcademicCalendar.aspx

## 7. OTHER ADMINISTRATIVE DETAILS

## 7.1. ADA / Equal Access for Students with Disabilities

The American Disabilities Act (ADA) is a federal law requiring educational institutions to provide reasonable accommodations for students with disabilities. For more information about UWSP's policies, see: https://www.uwsp.edu/datc/Pages/uw-legal-policy-info.aspx

UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. The modifications should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom. Examinations or other procedures used for evaluating students' academic achievements may be adapted. The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

If modifications are required due to a disability, please inform the instructor and contact the Disability and Assistive Technology Center to complete an Accommodations Request form. The Disability and Assistive Technology Center is located on the 6th Floor of Albertson Hall. For more information, call 715-346-3365 or visit: <a href="https://www.uwsp.edu/datc/Pages/default.aspx">https://www.uwsp.edu/datc/Pages/default.aspx</a>

#### 7.2. Inclusivity/Nondiscrimination Statement

It is the responsibility of the instructor to present materials and activities that are respectful of diversity, such that students from all diverse backgrounds and perspectives be well-served by this course. No person shall be discriminated against because of race, ethnicity, color, age, religion, creed, gender, gender identity, sexuality, disability, nationality, culture, genetic information, socioeconomic status, marital status, veteran's status, or political belief or affiliation and equal opportunity and access to facilities shall be available to all. To address concerns regarding any of these issues please call 715-346-2606 or visit:

http://www.uwsp.edu/hr/Pages/Affirmative%20Action/About-EAA.aspx

#### 7.3. Religious Beliefs Accommodation

It is UW System policy (UWS 22) to reasonably accommodate your sincerely held religious beliefs with respect to all examinations and other academic requirements. A direct link to this policy can be found here: https://docs.legis.wisconsin.gov/code/admin\_code/uws/22

#### 7.4. Help Resources

The Tutoring and Learning Center helps with Study Skills, Writing, Technology, Math, & Science. The Tutoring and Learning Center is located at 018 Albertson Hall. For more information, call 715-346-3568 or visit: https://www.uwsp.edu/tlc/Pages/default.aspx

If you need healthcare, UWSP Student Health Service provides student-centered healthcare that empowers and promotes wellness for all UWSP students. Student Health Service is located on the 1st floor of Delzell Hall. For more information, call 715-346-4646 or visit: <a href="http://www.uwsp.edu/stuhealth/Pages/default.aspx">http://www.uwsp.edu/stuhealth/Pages/default.aspx</a>

The UWSP Counseling Center is staffed with licensed mental health professionals dedicated to assisting students as they navigate difficult circumstances or resolve personal concerns. Therapy and consultation services are free of charge for registered students. The UWSP Counseling Center is located on the 3rd Floor of Delzell Hall. For more information, call 715-346-3553 or visit: http://www.uwsp.edu/counseling/Pages/default.aspx

In addition to the support services provided by Student Health Service and the UWSP Counseling, there are also professional support services available to students through the Dean of Students. The Office of the Dean of Students supports the campus community by reaching out and providing resources in areas where a student may be struggling or experiencing barriers to their success. Faculty and staff are asked to be proactive, supportive, and involved in facilitating the success of our students through early detection, reporting, and intervention. As such, an instructor may contact the Office of the Dean of Students if he or she senses that a student is in need of additional support beyond what the instructor is able to provide. For more additional information, please go to <a href="http://www.uwsp.edu/dos/Pages/default.aspx">http://www.uwsp.edu/dos/Pages/default.aspx</a>

UWSP students may also share a concern directly if they or another member of our campus community needs support, is distressed, or exhibits concerning behavior that is interfering with the academic or personal success and/or the safety of others. Please report any concerns of this nature at https://www.uwsp.edu/dos/Pages/Anonymous-Report.aspx

#### 7.5. Emergency Response Guide

In the event of an emergency, follow UWSP's emergency response procedures. For details on all emergency response procedures, please go to <a href="http://www.uwsp.edu/rmgt/Pages/em/procedures">http://www.uwsp.edu/rmgt/Pages/em/procedures</a>

## 7.6. UWSP Community Bill of Rights and Responsibilities

UWSP values a safe, honest, respectful, and inviting learning environment. In order to ensure that each student has the opportunity to succeed, a set of expectations has been developed for all students, staff, and faculty. This set of expectations is known as the Rights and Responsibilities document, and it is intended to help establish a positive living and learning environment at UWSP. For more information, go to:

https://catalog.uwsp.edu/content.php?catoid=10&navoid=422#section-1-communal-bill-of-rights-and-responsibilities

#### 7.7. University Attendance Policy

In addition to the course attendance policies determined by the instructor (noted above if applicable), the university provide standard guidelines by which students are to abide. All exceptions to the course attendance policy or the university guidelines should be documented in writing. A link to the university's attendance guidelines can be found at: https://www.uwsp.edu/regrec/Pages/Attendance-Policy.aspx

#### 7.8. University Drop Policy

You are expected to complete the courses for which you register. If you decide you do not want to take a course, you must follow the procedures established by the university to officially drop the course. If you never attend or stop attending a course and fail to officially drop, you will receive an F in the course at end of the semester. A link to the university's drop policy can be found at: <a href="https://catalog.uwsp.edu/content.php?catoid=11&navoid=431&hl=add%2Fdrop&returnto=search#Drop/Add/Withdrawal\_Procedures">https://catalog.uwsp.edu/content.php?catoid=11&navoid=431&hl=add%2Fdrop&returnto=search#Drop/Add/Withdrawal\_Procedures</a>

## 7.9. Academic Honesty

UW System policy (UWS 14) states that students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students suspected of academic misconduct will be asked to meet with the instructor to discuss the concerns. If academic misconduct is evident, procedures for determining disciplinary sanctions will be followed as outlined in UWS 14. A direct link to this policy can be found here: https://docs.legis.wisconsin.gov/code/admin\_code/uws/14

## 7.10. Grade Reviews/Appeals

A formal grade appeal, also known as a Grade Review, can be requested in instances when the student feels that he or she was not provided a syllabus with a grading scale in a timely manner (i.e., the end of the second week of classes) and/or the instructor did not stick with the grading scale published in the syllabus. Questions of whether or not the instructor appropriately graded one or more of the course assignments, quizzes, exams, etc. are not matters to be decided by a formal grade appeal, but rather should be taken up with the instructor directly. Information on grade reviews can be found in the University Handbook, Chapter 7, Section 5. A link to the university's policies on non-academic misconduct can be found at https://www.uwsp.edu/acadaff/Pages/gradeReview.aspx

#### 7.11. Non-Academic Misconduct

Information on non-academic misconduct can be found in Chapters 17 and 18 of the Student Rights and Responsibilities Document. A link to the university's policies on non-academic misconduct can be found at <a href="https://www.uwsp.edu/dos/Pages/stu-conduct.aspx">https://www.uwsp.edu/dos/Pages/stu-conduct.aspx</a>.

#### 7.12. Confidentiality

Learning requires risk-taking and sharing ideas. Please keep your classmates' ideas and experiences confidential outside the classroom unless permission has been granted to share them.

It is important for students to understand that faculty are required to report any incidents of maltreatment, discrimination, self-harm, or sexual violence they become aware of, even if those incidents occurred in the past, off campus, or are disclosed as part of a class assignment. This does not mean an investigation will occur if the student does not want that, but it does allow the university to provide resources to help the student continue to be successful.

### 7.13. Sample Coursework Permission

The instructor may wish to use a sample of your work or some of the feedback you provide on the course in future teaching or research activities. Examples: showing students an example of a well-done assignment; analyzing student responses on a particular question; discussing teaching techniques at a conference. If your coursework or feedback is used, your identity will be concealed. If you prefer not to have your work included in any future projects, please send the instructor an e-mail indicating that you are opting out of this course feature. Otherwise, your participation in the class will be taken as consent to have portions of your coursework or feedback used for teaching or research purposes.

#### 7.14. Revision Clause

This syllabus, the provided schedule, and all aforementioned coursework, are subject to change. It is the student's responsibility to check the course website for corrections or updates to the syllabus. Any changes will be clearly noted in a course announcement or through email.