

**College of Charleston**  
**School of Business**  
**DSCI 304.01 – Production and Operations Management**

**Professor information**

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**Class Information**

Time: T & R 5:30 – 8:15 pm

Classroom: Tate Center for Entrepreneurship T130

**Course Textbook and Software**

- Course notes, Gavidia, J. (2019). Available on Oaks for free thanks to Prof. Dr Jose Gavidia
- Excel
- SAP S4/HANA – supported through the web

**Course Description**

The planning and control of production and service operations with emphasis on Total Quality Management, demand forecasting, design of production systems, aggregate planning, and inventory management. Additional topics will include just-in-time production, cellular manufacturing, flexible manufacturing systems, robotics, computer-aided design and manufacturing and quality circles. Students will use appropriate computer software to gain experience with several decision techniques

**Prerequisites**

DSCI 232, MGMT 301, MTH 104 or MATH 250, MATH 105 or MATH 120

**School of Business Learning Goals**

- **COMMUNICATION SKILLS:** Students will demonstrate the ability, via both written and spoken word, to effectively present, critique, and defend ideas in a cogent, persuasive manner.
- **QUANTITATIVE FLUENCY:** Students will demonstrate competency in logical reasoning and data analysis skills.
- **GLOBAL AND CIVIC RESPONSIBILITY:** Students will be able to identify and define social, ethical, environmental and economic challenges at local, national and international levels. Students will also be able to integrate knowledge and skills in addressing these issues.
- **INTELLECTUAL INNOVATION AND CREATIVITY:** Students will be able to demonstrate their resourcefulness and originality in addressing extemporaneous problems.
- **SYNTHESIS:** Students will demonstrate the ability to integrate knowledge from multiple disciplines incorporating learning from both classroom and non-classroom settings in the completion of complex and comprehensive tasks.

## ATTENTION

This class is a pre-requisite for many other classes in the School of Business. Make sure you know how this class affects your other classes.

## Course Objectives

The Operations Management (OM) function is integral to any business/ organization. It deals with the planning, designing, and controlling of production processes. It is a subsystem of an organization that converts inputs into outputs (products and services). The focus of this course is to learn different functions of operations and understand the problems and decisions problems faced by Operations Managers. Students are expected to

- Learn how 'Operations' is integrated with other functions in an organization.
- Categorize areas of operations management and describe her or his role in the operations situation using current information in the field.
- Demonstrate the use of quantitative tools and decision-making processes in the inventory, capacity, work force, and quality functions of operations management.
- Examine the role of an operating system in a firm, and then use OM principles to examine those value-added activities that create the goods and services it supplies to customers.

## Teaching Method

Lecture and hands-on exercises. We will use the enterprise resources planning (ERP) software SAP S4/HANA and Excel during the entire semester. Some videos will be posted on Oaks for students to watch as a e-learning tool in the course.

## In-class exercises

Each class session will consist of a period of lecture/demonstration, followed by a period of in-class exercises. The exercises will consist of hands-on computer exercises, which will serve as the primary means for you to learn to use the software applications covered in this course, so take them seriously.

## Homework assignments

Homework assignment consist of a list of exercises students should work on to provide opportunity for students to practice statistics and help learn it. They are not graded but they help the learning and participation in class (which is graded).

## How can I be successful in this class?

Here are some guidelines that increase your likelihood of success in this class:

- **Attend all classes.** Production and operations management is very challenging and every class has a lot of new material and content. If you miss one class, you will miss many math details necessary to succeed.

- **Have total attention in the class.** If you do not pay attention to all details discussed in class, it will be more difficult for you to solve problems and succeed.

- **Take notes.** Classes are intense in the content and I communicate many details through different examples that might not be in the textbook or slides. If you do not take notes, it will be difficult to remember later.
- **Work on homework assignments in few portions every day.** Do not wait until the last few days to work on the homework assignments. Do not work on only one block of time on the homework. Instead, work few portions every day. The suggestion is to work 2 hours every day.
- **Read the class notes prior to classes.** There are many terms and new information in every class. If you read the class notes you will be more prepared to understand the class.
- **Make use of handouts, videos, and other resources.** I prepare handouts and post link to Youtube videos to help you summarize and have an overview the main concepts and use of SAP S4/HANA Fiori Launchpad. Also, you can make use of tutors available to help you.

## Class Policies

### Exam Policy

Exams are your opportunity to score points by showing your knowledge, understanding, and skills. The primary purpose of exams is to evaluate your ability to understand and apply statistical tools to solve business problems. These are the guidelines to be followed during exams:

- Exams are closed books.
- Turn off your cellphones and all other electronic devices.
- If a student arrives late to an exam or continues working after time is called, the exam will not be accepted for grading.
- Students are not allowed to use any outside materials or leave the classroom during the exams, unless specifically authorized by the instructor.
- All exams are to be taken at the scheduled times.
- **No make-up exams will be given except for documented emergencies.**

### Attendance Policy

Since this is an interactive class with significant student participation, attendance to all class meetings is expected.

**Students with more than three unexcused absences will be assigned a WA grade.**

Presence and absence will be given for each 1h15min class. Ex.: A student leaving at 7:00pm, after attending class from 5:30pm, will receive one absence. Students missing one entire class will receive two absences.

**Important: Do not schedule personal appointments, such as doctor visits or other meetings, during class times.**

Non-emergency doctor visits are considered unexcused absences. Students are responsible for all announcements and assignments are made in class and all course material distributed and

covered, regardless of their presence or absence for any class.

Excerpt from the CofC catalog:

Because class attendance is crucial for any course, students are expected to attend all classes and laboratory meetings of each course in which they enroll. Instructors maintain the authority to determine how absences will be addressed, which should be detailed in their attendance policies. Participation in college-sponsored activities, where students are official representatives of the College of Charleston, may result in absence(s). Instructors will recognize absences in which students are official representatives of the College of Charleston (such as intercollegiate academic or athletic team competition, or academic program sanctioned research presentation or artistic performance) as excused. During the first week of classes, instructors will announce and distribute their attendance policies, including criteria to be used in determining excused absences. Instructors determine whether absences are excused or unexcused for the purposes of participation grades, in-class assignments, and laboratories. Regarding formal graded work (such as exams, presentations, papers), instructors will make “reasonable accommodations” when a student misses class for an event at which s/he is an official representative of the College of Charleston. Examples of reasonable accommodations might include: rescheduling an exam, altering presentation times, or flexibility in assignment submission dates. Students are required to submit documentation of their College representation related commitment from the appropriate College authority at least one week prior to the scheduled absence in order to be eligible for reasonable accommodations by the instructor. Regardless of any accommodation granted, students are responsible for satisfying all academic objectives, requirements, and prerequisites as defined by the instructor and the College. Instructors ascertain whether both excused and unexcused absences count in determining the basis for a grade of “WA,” which stands for “withdrawn excessive absences” and is equivalent to a failing grade. If attendance is used for grading purposes, the instructor is responsible for keeping accurate attendance records. If a student has more than the maximum allowed absences as defined in the course syllabus, the professor may assign a “WA.” Instructors are required to submit an electronic “WA” form (located in MyCharleston faculty tab) to the Registrar on or before the last meeting day of the class. The Registrar will then send an email notification to the student. The student is responsible for keeping personal addresses and contact information current through the Office of the Registrar. All students, whether absent or not, are responsible for all information disseminated in the course.

### **Classroom Behavior**

The Classroom Code of Conduct (from the President’s Advisory Committee) covers specific principles of civil conduct expected in a college classroom:

- Turn off cell phones and all other electronic devices. Do not use computers for tasks unrelated to the class. Using the internet during class is distracting to the professor and other students.
- Never get late or leave early during class.
- Do not talk with classmates while the professor (or another student) is talking.
- Visible and noisy signs of restlessness are rude as well as disruptive to others. (Student Handbook, pp. 58-59)

## **College of Charleston Honor Code and Academic Integrity**

Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved. Incidents where the instructor determines the student's actions are related more to a misunderstanding will be handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed both by the instructor and the student, will be forwarded to the Dean of Students and placed in the student's file. Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after which the student may petition for the X to be expunged. The F is permanent. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board. Students should be aware that unauthorized collaboration—working together without permission—is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information via a cell phone or computer), copying from others' exams, fabricating data, and giving unauthorized assistance. Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor. Students can find the complete Honor Code and all related processes in the Student Handbook at <http://studentaffairs.cofc.edu/system/studenthandbook/index.php>

## **Withdrawal Policy**

The professor does not process Instructor Withdrawals for any reason.

## **Resources**

### **Center for Student Learning**

Center for Student Learning: I encourage you to utilize the Center for Student Learning's (CSL) academic support services for assistance in study strategies, speaking & writing skills, and course content. They offer tutoring, Supplemental Instruction, study skills appointments, and workshops. Students of all abilities have become more successful using these programs throughout their academic career and the services are available to you at no additional cost. For more information regarding these services please visit the CSL website at <http://csl.cofc.edu> or call (843)953-5635.

### **Students with Disabilities**

The College will make reasonable accommodations for persons with documented disabilities. Students should apply at the Center for Disability Services / SNAP, located on the first floor of the Lightsey Center, Suite 104. Students approved for accommodations are responsible for

notifying me as soon as possible and for contacting me one week before accommodation is needed.

## Grading

There will be exams, quizzes, and homework. Grade points are given according to the following distribution:

Evaluation	Points
Exam 1	20%
Exam 2	20%
Final exam	20%
Homework/Quizzes	10%
Participation	10%
SAP S4/HANA Case study	20%
Total	100

Final grades will be assigned according to the following grading scale:

Points	Letter Grade	Points	Letter Grade
> 94	A	73 - 75.99	C
90 - 93.99	A -	70 - 72.99	C -
86 - 89.99	B +	66 - 69.99	D +
83 - 85.99	B	63 - 65.99	D
80 - 82.99	B -	60 - 62.99	D -
76 - 79.99	C +	< 60	F

### Important note about exams and grading:

The professor encourages students to review in detail when exams are returned. You have two days after the graded evaluation was given to you to make any questions or complaints about it. If that time is passed, it means you have accepted the grade given. No complaints are accepted for any reason if the two days period has passed (non-negotiable).

## TENTATIVE SCHEDULE

Month	Day	Topic	Reading
Oct	12	Introduction to the class	Ch Operations in the enterprise
Oct	12	SAP Global Bike + Navigation	Ch Enterprise Resource Planning
Oct	14	Sales forecasting	Ch Demand forecasting
Oct	14	Forecast exercises	Ch Demand forecasting
<b>Oct</b>	<b>19</b>	<b>Fall break</b>	
<b>Oct</b>	<b>19</b>	<b>Fall break</b>	
Oct	21	Forecast accuracy	Ch Demand forecasting
Oct	21	Forecast accuracy	Ch Demand forecasting
Oct	26	Quiz I	Quiz I
Oct	26	Sales and ops planning	Ch Supply chain planning
Oct	28	Review	
<b>Oct</b>	<b>28</b>	<b>Exam I</b>	Exam I
Nov	2	Demand and mat. planning	Ch Supply chain planning
Nov	2	Material and resources planning	Ch Supply chain planning
Nov	4	Material and resources planning	Ch Supply chain planning
Nov	4	Production execution	Ch Production planning and execution
Nov	9	Production execution	Ch Production planning and execution
Nov	9	Quiz II	Quiz II
Nov	11	Inventory management	Ch Inventory management
Nov	11	Economic order quantity	Ch Inventory management
Nov	16	Single period model	Ch Inventory management
<b>Nov</b>	<b>16</b>	<b>Exam II</b>	Exam II
Nov	18	Quality management	Ch Quality management
Nov	18	Quality management	Ch Quality management
<b>Nov</b>	<b>18</b>	<b>LAST DAY FOR STUDENTS TO WITHDRAW WITH A "W" GRADE</b>	
Nov	23	Quality management	Ch Quality management
<b>Nov</b>	<b>23</b>	<b>Quiz III → LAST DAY TO FINISH THE SAP CASES</b>	
<b>Nov</b>	<b>25</b>	<b>Thanksgiving</b>	
<b>Nov</b>	<b>25</b>	<b>Thanksgiving</b>	
Nov	30	Order-to-cash process	Ch Sales and order fulfillment
Nov	30	Order-to-cash process	Ch Sales and order fulfillment
Dec	10	<b>Final exam from 6 pm to 8 pm</b>	