

**Course:** BA3632.4 Manufacturing Cluster Spring 2018

**Faculty:** Dr. Andrea Prud'homme, CLTD, CSCP, CFPIM, CIRM

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**Office Hours:** Tuesday 1-3:00am or by appointment, I can often meet with 'drop-ins, so please stop by!

**Class meets:** Wednesday 2:40-5:00, Gerlach Hall 285

This course is the second in a 2-course sequence comprising the requirements for the Manufacturing Cluster, and when combined with other course work provides students with an in-depth exposure to manufacturing business practices. Successful completion of the first course is a prerequisite for inclusion in the spring course, which will continue exposure to relevant manufacturing issues and will also include work on projects within our sponsor company organizations. Each course will utilize Fisher College of Business Faculty and industry professionals from contributing sponsors which will include Arconic, Honda and Owens Corning.

It is strongly encouraged that students complete the Introduction to Operations Management course (BusMgt3230) and the Introduction to Logistics Management course (BusML3380) before or during the fall semester of the manufacturing industry cluster sequence. Taking other relevant courses related to manufacturing (BusMgt4250 Six Sigma Principles; BusMgt 4232 Ops Planning and Control, BusMgt4239 Managing Process Improvements, BusML 4383 Supply Chain Management, ISE 3400 Prod Planning and Facility Design, ISE4900 or 5810 Lean Sigma) as soon as possible will provide additional context for the Industry Cluster course.

### **PROFESSIONAL DEVELOPMENT BEYOND THE CLASSROOM:**

Students are also encouraged to become student members of a related professional organization, many of which offer reduced (or free) membership rates. Suggested professional organizations include:

- APICS: The Association for Operations Management at <http://www.apics.org/>
- Association of Manufacturing Excellence (AME) at <http://www.ame.org/>
- National Association of Manufacturers (NAM) at <http://www.nam.org/>
- Institute for Supply Management (ISM) at <http://www.ism.ws/>
- Council of Supply Chain Management Professionals (CSCMP) at <http://cscmp.org/>
- Society of Manufacturing Engineers (SME) at <http://www.sme.org/>

In addition to professional organizations, there are several relevant student organizations:

In Fisher College of Business:

- Buckeye Operations Management Society (BOMS) at <https://groups.cob.ohio-state.edu/boms/>
- The Logistics Association (TLA) at <http://www.osutla.com/>
- Purchasing and Supply Management Association (PSMA) at <http://psma.org.ohio-state.edu/>

In the College of Engineering:

- American Society for Quality (ASQ) <http://asq.org.ohio-state.edu/>
- Institute for Operations Research & the Management Sciences (INFORMS) <http://informs-sc.osu.edu/>

### **KEY LEARNING OBJECTIVES OF THE MANUFACTURING CLUSTER:**

- Greater breadth of understanding of the unique challenges and opportunities in manufacturing
- Enhance team work skills and professional demeanor and bearing
- Improve verbal and written communication abilities
- Begin acquiring and building a professional network

### **COURSE OVERVIEW:**

The objective of the second course in the manufacturing cluster sequence is to familiarize students with the business environment in which manufacturing operates in the U.S and globally by completing a project for one of the sponsor companies. The course is structured with input from corporate executives from manufacturing firms who will be leading classroom discussions of current topics central to manufacturing and supply chain management. Specifically, the successful completion of this course should enable students to understand and analyze problems which challenge successful operations of manufacturing companies, recognizing that the challenges facing these companies may be macro and micro in nature.

While the emphasis of the second term course is will be on the student projects, and a continuation of executives visiting us, student interactions with company guests are expected to be exemplars of the professionalism looked for in every OSU student.

This course is a mixture of lecture, case studies, readings, individual and team exercises, in-class group discussion, on-site tours, project work and an examination. Understanding of the key issues within manufacturing will be gained primarily through readings and presentations by faculty and industry guests. Students must be fully prepared for class. Each student should come to class ready to discuss, validate, debate, and/or state their positions concerning various topics within the classroom and with guests — just as they would in a business setting.

#### **CLASSROOM EXPECTATIONS:**

- Prompt attendance is expected for all class sessions, and required when we have a guest. This means seated and ready to begin work at the scheduled class start.
- Students should dress business casual when we have a guest.
- Cell phone/tablet/pad/computer usage in any form, for any reason, is not permitted during scheduled class time unless specifically requested by professor or speaker.
- Students are expected to come to class prepared to actively participate in class discussion and to engage in intellectual conversation with our guests, which requires that assigned readings/work is done in advance. Our classes are meant to be interactive and our guests are expecting students to be knowledgeable about the topic, actively engaged, and participate in spirited discussion.
- Messages related to the course will be sent to you via e-mail between class sessions. Therefore, it is essential that you check your OSU e-mail messages on a regular basis, as well as Carmen.
- Professional, attentive, respectful and collegial behavior is expected and required.

#### **EVENTS TAKING PLACE OUTSIDE OF SCHEDULED CLASS TIME:**

Students are REQUIRED to attend the following events as part of the overall Fisher Cluster program. The only attendance exception will be for a documented illness or documented family emergency.

- End of the year celebration: **TBD** evening at the Blackwell
- OPTIONAL: trip to Arconic facilities with E&S Immersion class, **Feb 16, 2018 (all day)**
- OPTIONAL: cluster trip to Chicago, **March 22-25, 2018**

In addition, we may have the opportunity to have tours or visits to see what we have been learning in class, out in the field 'live'. Every effort will be made to provide adequate notice to allow students to adjust their busy schedules. Please note that there is not a time, other than our scheduled class, when all of us certainly have no other obligations. Every effort to vary the timing of additional activities will be undertaken so that as many students as possible will be able to take part (this is not part of formal participation assessment).

#### **ASSESSMENT OF STUDENT LEARNING AND PARTICIPATION:**

**Final Exam:** There will be an essay exam, which will serve as the final exam, similar in format to the final exam from the Fall semester. The purpose of the exam is to demonstrate your ability to integrate the material covered in the class (readings, speakers, your project, and project work done by other students) to address a posed problem, situation or statement.

**Participation:** This class is not meant to be a standard lecture class, but should be much more participatory with our guest speakers. Please keep in mind that our speakers have traveled some distance to be on campus with us, often after having worked a full day in their jobs, on their own time. As such the very highest levels of professional behavior are expected in class. This includes (but is not limited to), information included in the "Classroom Expectations" portion of the syllabus. With this said, the class should also be a dynamic place where we can all share ideas, opinions and ask questions in a collegial environment.

Assessment of students in this area will include adherence to the standards above, participation in class discussion and evidence of student's thoughtfulness about discussion topics, and the student's ability to make a positive impact in the classroom. Mere attendance, while necessary, is not sufficient; you must also consistently make visible, positive contributions (like a job!). This can also include participation on the Carmen discussion spaces. Everyone will start with '0' for participation and the quality and quantity of your contributions will earn you credit in this area.

**Current Topic Presentation:** Each student will give *two 10 min formal presentations on a current topic of the student's choice relating to manufacturing*. It can be information about a change in regulations/policy, a major activity being undertaken by a firm, new research shedding light on something that will impact manufacturers, etc. This assignment has several goals: 1) help students develop professional information sharing skills, 2) help students get in the habit of staying on top of business news and happenings, and 3) to help the class know what is happening in the business environment. Each student will be assigned a class session during the semester in which to share their news. Your slides should be posted in the Canvas discussion space by noon of the day before your presentation day.

**Company Project:** Each student will contribute to a team assigned to work on a consulting project for one of the sponsor companies. Each group will prepare a preliminary written consulting report and formal, final presentation. The **first draft of the write-up is due March 28th**. At this time you will also be required to give a **20 minute presentation of the report to the class** for practice for your final presentation to the project sponsor and class feedback. The presentation should highlight (1) background information on the organization, (2) specific objectives of the project, (3) potential risks/problems with the project, (4) opportunities on the project 5) proposed recommendations or steps to solve the problem, (6) final recommendation. I will meet with each group as needed throughout the semester to help with the project, and to revise the final report. Each group will revise their report based upon class feedback and submit the final version of the report **April 4<sup>th</sup>**.

Your project grade will be based significantly on feedback from the project sponsor regarding their opinion of your team's overall performance and the quality of your final recommendation/report/presentation. In addition, the grade of each team member will be based upon the peer feedback of the other team members (this is reflective of the 'real world' 360° peer feedback most companies use to complete performance evaluations). Your project grade can be adjusted up to two full letter grades, based upon feedback from your team members.

We will have class time set aside for your team to work on the projects or to meet with me for help.

PLEASE ASK QUESTIONS about your performance as the semester progresses, so there are not surprises at the end!

**Plan for Evaluation:**

Final Exam	25%
Project	50% (draft March 28th, final April 4th)
Topic presentations	15% (7.5% for each)
Participation	<u>10%</u>
	100%

TENTATIVE CLASS SCHEDULE: TBD

## Peer Evaluation

The peer evaluation is an opportunity for you to assess the contribution of each of your group members. Your answers to this evaluation will not be shared with any other team member.

1. Are you concerned about any other group member's evaluation of you? Explain.

2. For each category, please rate each group member on a scale of 1 (very low) – 5 (very high), reflecting their contribution to each activity.

Member name	Contribution to group analysis	Preparation for presentations	Contributes in group meetings
<b>Yourself:</b>			

3. On a scale of 1 (very bad experience) - 5 (very good experience), how would you evaluate your overall "team experience" in this class? \_\_\_\_\_

Comments