

Curriculum Proposal Signature Sheet

New Course--OM 547: Production Planning & Control
TITLE OF PROPOSAL

Type of Proposal

Program

- New
- Changes within Major
- Changes within Cognate *
- Changes in Minor or Track
- Changes in Concentration*
- Program Deletion

Course

- New
- Changes in Course taken only by Majors
- Changes in Course required of Non-Majors*
- Changes in Course open to Non-Majors
- Deletion of Course taken only by Majors
- Deletion of Course required of Non-Majors*
- Deletion of Course open to Non-Majors

Operations & Information Management
SPONSORING DEPARTMENT(S)

Review and Approval 3/30/2009
DATE(S)

Signature of Sponsoring Chair(s)/Date [Signature]

* For starred items Chairs of affected Departments/Programs must sign below before Dean's review

Dean's Preliminary Review Proposal: Complete
 Additional preliminary comments below Satisfies U of S Curricular Requirements
 Consistent with College Goals/Mission

Dean's Signature/Date [Signature] 3/30/2009
 CAS CPS SOM GRAD DHC

Preliminary FSCC Disposition:

- Committee recommends approval (new program proposals require a Recommendation from the full Senate)
- Proposal will require minimal review: Anticipated FS Meeting Date: _____
- Proposal will require significant review: Anticipated FS Meeting Date: _____

FSCC Chair Signature/Date _____

Issues: _____

Additional Signatures

graduate program committee [Signature] 3/30/09
Department Signature Date

Department Signature Date

Department Signature Date

New Course

Course Title: Production Planning & Control

Course Number: OM 547

Date Of Initial Offering: Spring 2010
Semester year

Rationale for Course level

Graduate-level course intended for MBA students.

Credit Hours: 3 **Format:** lecture lab other: _____

Frequency: annual each semester alternate years

Prerequisites: MBA 504C-Operations Management Module

Rationale for pre-requisites (if pre-requisites are listed)

Course assumes background knowledge contained in the prerequisite.

Catalog Description (50 word maximum)

An in-depth look at the planning and control of material flow and production activities in a manufacturing organization. Topics include: forecasting, sales and operations planning, demand management, master production scheduling, material requirements planning, production execution, and just-in-time systems. Hands-on exercises using ERP software will serve to reinforce the interconnectedness of operations with the other business functional areas.

Similar Courses being offered at the University

None at the graduate level.

Discuss Extent of overlap with existing courses

No overlap.

Special Resources Required (e.g. library, equipment, materials/facilities)

SAP ERP software needed for the course will be accessed at the University of Wisconsin-Milwaukee through the Kania School's hosting arrangement with the SAP University Alliance Program.

Characteristics (check any/all that apply):

Major: Required Elective
GE : submitted to CCC will be submitted to CCC _____ Area Free only
date

- | | | |
|--|---|---|
| <input type="checkbox"/> Humanities (CA) | <input type="checkbox"/> S/B Sciences (S) | <input type="checkbox"/> Cultural Diversity (D) |
| <input type="checkbox"/> Humanities (CH) | <input type="checkbox"/> Natural Science (E) | <input type="checkbox"/> Writing Intensive(W) |
| <input type="checkbox"/> Humanities (CL) | <input type="checkbox"/> Theology/Phil (P) | |
| <input type="checkbox"/> Humanities (CF) | <input type="checkbox"/> Quantitative Reasoning (Q) | |

Interdisciplinary: YES NO **Team Teaching:** YES NO

Exclusively For Special Programs/Concentrations: NO YES (Name) _____

Home College: CAS PCPS KSOM GRAD

Required Attachments:

- Syllabus with student learning objectives, assessment/evaluation mechanisms, and outline of topics
- Description of, or example of, readings/papers/projects/examinations
- Assessment/evaluation based course improvement mechanisms

OM 547: Production Planning & Control

Course Description

An in-depth look at the planning and control of material flow and production activities in a manufacturing organization. Topics include: forecasting, sales and operations planning, demand management, master production scheduling, material requirements planning, production execution, and just-in-time systems. Hands-on exercises using ERP software will serve to reinforce the interconnectedness of operations with the other business functional areas (3 credits; prerequisite: MBA 504C or equivalent).

Required Text

Thomas E. Vollmann, William L. Berry, D. Clay Whybark, and F. Robert Jacobs
Manufacturing Planning and Control for Supply Chain Management (Fifth Edition, 2005)
McGraw-Hill/Irwin (ISBN 0-07-229990-8)

Course Objectives

At the end of the semester, the student should:

1. have a solid understanding of the concepts underlying production planning and control processes within a manufacturing organization;
2. have an appreciation of the role played by production planning and execution systems within the larger context of overall enterprise management; and,
3. have gained hands-on experience in the use of a leading ERP software system (SAP ERP) to plan and control material flow and production activities to support different manufacturing strategies.

Evaluation

Assignments	70%
Exams	30%

Course Topics

Topic	Details
Introduction	<p>Course overview The production planning hierarchy Planning levels Planning vs. execution Manufacturing environments: make-to-stock, assemble-to-order, make-to-order PP& C in the ERP context</p>
Sales & Operations Planning	<p>Forecasting and customer order management Profitability analysis and revenue plans Product groups The planning table Creating the sales and production plans Rough-cut capacity planning Optimization modeling of S & OP Disaggregation and transfer to demand management</p>
Demand Management	<p>Planned and customer independent requirements Consumption logic (forward vs. backward) Transferring requirements to MPS</p>
Master Production Scheduling	<p>Independent vs. dependent requirements MPS planning run and manual check Planning time fence Single-item planning (single vs. multi-level) Collective planning</p>
Material Requirements Planning	<p>MRP prerequisites, uses, and functions MRP list and the stock/requirements (S/R) list Planned orders Lot sizing procedures (static, periodic, optimal) Regenerative vs. net-change MRP Pegging</p>
Execution	<p>Structure of planned orders Conversion of planned orders Production orders and purchase requisitions Order release Issuing material Completion confirmation Goods receipts</p>
Just-in-Time	<p>Integrating MRP and JIT Issue storage locations Exclusion from MRP planning Kanban control cycles, Kanban board Replenishment strategies</p>

The following hands-on exercises using SAP ERP software will explore specific production planning and control strategies for a hypothetical (case) company.

Navigation
Master Data
Manufacturing Planning & Control (MPC)
Master Production Scheduling (MPS) and Material Requirements Planning (MRP)
Manufacturing Execution
Lead Times and Capacity Evaluation
Strategies: Make to Stock (w/ Production Orders, w/Final Assembly) Make to Order Repetitive Manufacturing Kanban Manufacturing