**IE 4304:** Enterprise Systems (3-0)

**IE 5312:** Planning and Control of Enterprise Systems (3-0)

Spring 2014

**Instructor(s):** Dr. Erick C. Jones

**Office Number:** Dr. Erick Jones – WH 325F;

**Office Telephone Number:** Dr. Erick Jones: 817-272-7592

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**Office Hours:** Mondays and Wednesdays: 2:00 pm – 4:00 pm

**Time and Place of Class Meetings:** Monday and Wednesday 5:30pm – 6:50pm 402 WH

**Description of Course Content:** An extension of Production and Inventory Control (IE 4303), this course covers enterprise resource planning systems (ERP) in manufacturing, E-Commerce and supply chain environments. ERP software and case studies are reviewed. Prerequisite: IE 4303.

A continuation of IE 5329 covering enterprise resource planning systems (ERP) and other advanced production control techniques. Computer modeling is emphasized. Prerequisite: IE 5329

**Student Learning Outcomes:** Upon completion of this course the student is expected to have demonstrated his/her ability to know and properly use:

1. Enterprise Resource Planning (ERP) Software module analysis techniques
2. Radio Frequency Identification (RFID) technologies evaluation techniques
3. Advanced Inventory control management techniques using RFID and Automation
4. Advanced Scheduling for production operation techniques using RFID and Automation
5. Push and pull production control theories (MRP and JIT) with ERP Systems

**Requirements:** [If relevant, insert special requirements such as specific and required course prerequisites, out-of-class meetings, etc. It is important to let students know if there are any attendance requirements that go beyond regular class meetings so that those with other responsibilities (family, work, other courses) can plan accordingly.]

**Required Textbooks and Other Course Materials**

\*1. RFID and Auto-ID in Planning and Logistics, A Practical Guide for Military UID Applications, Erick C. Jones and Christopher A. Chung, PhD

2. Factory Physics, 3rd edition, Wallace J. Hopp and Mark L. Spearman

\* Required

**Grading**: All work will be done individually unless otherwise specified. The grading policy is expected to be as follows

 Graduate (5312)

Exams 2 **30%**

 Final Exam **20%**

 Homework **5%**

 Project/Paper **40%**

Quizzes **5%**

 Total **100%**

Exams: May include multiple choice, short answer, and quantitative analysis type questions. No makeup exams will be allowed without prior authorization.

Homework: Problems sets will be assigned. Selected problems form those homework sets will be collected and graded. Homework is not accepted late.

Project/Paper: All students will be required to participate on projects including presentations. Graduate students will need to take a leadership role on team projects and are required to submit an article for peer review as a co-author with the professor.

Quizzes will be given. The score will be used to determine the semester points for the quizzes. Any person caught cheating on an examination or quiz will receive a zero score for that examination or quiz.

**Key Dates:**

 02/19 Exam #1

 03/17 Exam #2

 03/10-03/14 *Spring Vacation*

 05/05 Final Exam ***Note Time!*** [5:30PM-8:00PM]

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance**. Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://wweb.uta.edu/ses/fao>).

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Academic Integrity:** At UT Arlington, academic dishonesty is completely unacceptable and will not be tolerated in any form, including (but not limited to) “cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts” (UT System Regents’ Rule 50101, §2.2). Suspected violations of academic integrity standards will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student’s suspension or expulsion from the University.

**Student Support Services**:UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may contact the Maverick Resource Hotline by calling 817-272-6107, sending a message to resources@uta.edu, or visiting [www.uta.edu/resources](http://www.uta.edu/resources).

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent directly to students through MavMail approximately 10 days before the end of the term. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback data is required by state law; student participation in the SFS program is voluntary.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Tentative Class Schedule**

Week Date Topic Text Chapters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | 13-Jan |  | Course Administration/Manufacturing in America | 0,1, FP |
|  | 15-Jan |  | Manufacturing in America | 1, FP |
| 2 | 20-Jan |  | **MARTIN LUTHER KING Jr. DAY HOLIDAY** |  |
|  | 22-Jan |  | Inventory Control: From EOQ to ROP | 2, FP |
| 3 | 27-Jan |  | Overview of RFID | 4.4, 13,RFID |
|  | 29-Jan |  | RFID and Inventory Control | 20,21,RFID |
| 4 | 3-Feb |  | The MRP Crusade\* | 3, FP |
|  | 5-Feb |  | History of ERP\* | 1, Suppl |
| 5 | 10-Feb |  | Integrating the Supply Chain and ERP | 6,Suppl |
|  | 12-Feb |  | Theory of Constraints and ERP\* | 2,Suppl |
| 6 | 17-Feb |  | The Goal Movie | Video |
|  | 19-Feb |  | **EXAM 1 \*** |  |
| 7 | 24-Feb |  | JIT Revolution/What Went Wrong | 4, Suppl |
|  | 26-Feb |  | Operations Planning and ERP | 7, Suppl |
| 8 | 3-Mar |  | Manpower Planning | 18, RFID |
|  | 5-Mar |  | Production Planning | 19,RFID |
| 9 | 10-Mar |  | **SPRING BREAK** |  |
|  | 12-Mar |  | **SPRING BREAK** |  |
| 10 | 17-Mar |  | **EXAM 2** |  |
|  | 19-Mar |  | Integrating the Supply Chain and ERP revisited | 6,Suppl |
| 11 | 24-Mar |  | SCOR Model | 6, Suppl |
|  | 26-Mar |  | RFID Supply Chain Planning Levels | 13, RFID |
| 12 | 31-Apr |  | Supply Chain Management | 17 |
|  | 2-Apr |  | **Implementing ERP (Guest) Lecturer** |  |
| 13 | 7-Apr |  | ERP System Requirements | 11, Suppl |
|  | 9-Apr |  | Selecting the right ERP |  12, Suppl |
| 14 | 14-Apr |  | Implementing RFID (Guest) Lecturer |  |
|  | 16-Apr |  | RFID System Requirements | 12 |
| 15 | 21-Apr |  | RFID System Requirements | 12 |
|  | 23-Apr |  | Lean Six Sigma Research Methodology | Supplement |
|  16  | 28-Apr |  | Selecting the right RFID System | Supplement |
| 17 | 5-May |  | **FINAL EXAM 5:30pm – 8:00pm** |  |
|  | 13-May |  | **SPRING 2013 GRADUATION** |  |
|  |  |  |  |  |