Course: TECH 5312  
Title: Total Productive Maintenance  
Semester: Fall 2013  
Section: 01-Wednesday  
Class Time: 6PM-8:40PM  
Instructor: Dominick E. Fazarro, Ph.D.  
Office: 242  
Office Hours: Thursday 9-10, 2-4pm; TH 4-5  
Other Availability: By appointment  
Fax: 903-565-5650  
Phone: 903.565.5911  
Email: dfazarro@uttyler.edu  
Preferred Contact: N/A  

Required Textbooks, Materials, and Supplies:  

Course Content:  
This three hour graduate course will entail the primary focus of constant improvement in the overall equipment effectiveness (OEE) as it relates to equipment and capital assets. Other associated topics as life cycle costing, maintenance budgeting, machine availability. TPM brings maintenance into focus as a necessary and vitality important part of the business. TPM is used at all levels of the organization.  

Course Learning Objectives:  
These are the objectives for this course:  

✓ Understand how TPM improves operations by preventing equipment breakdowns; prevention of product defects and rejects; improving equipment effectiveness and efficiency; involving and training operators in equipment maintenance  
✓ Understand the usage of tools for TPM implementation and able to identify and eliminate loss through TPM implementation  
✓ Understand the roles and responsibilities of a TPM implementation organization and the critical issues  
✓ Understand the economic side to TPM and how it relates to Return on Investment (ROI)  

Student Learning Outcomes  
At the end of the course, students learning outcomes should be aligned with the Industrial Technology program outcomes:  

<table>
<thead>
<tr>
<th>Program Outcomes</th>
<th>TECH 5312</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. An ability to apply the knowledge to practical uses of management</td>
<td>X</td>
</tr>
</tbody>
</table>
2. An ability to plan and assess problems to determine viable solutions
3. An ability to design a system, component, or process to meet desired needs.
4. An ability to use communication and writing skills
5. An understanding of professional and ethical responsibility
6. An ability to communicate effectively.
7. An awareness of the impact of engineering and technology solutions in a global and societal context.
8. An awareness and commitment for lifelong learning.

Course Competencies

- **Computer-based skills**: Each student will present using PowerPoint and other delivery technology to enhance delivery of reports/project
- **Communication skills**: Each student will exhibit a mastery of both written and oral skills in plant visitation reports and maintenance manager interview.
- **Problem-Solving**: Each student will gather and use critical-thinking skills to develop business plan to reduce monetary loss
- **Ethical/Ethical Business Issues for decision making and Behavior**: Ethical issues will be presented when covering the subjects of budgeting and purchasing issues.
- **Accountability**: Each student will complete the course objective and requirements to meet the above course competencies

Assignments

- Journal entries
- Internet (Research) Assignments
- Assigned reading materials
- Midterm (Case Study)
- Final project

Learning-Management

Students will be able to view announcements, course progress, and retrieve some assignments using Blackboard™. This technology enable students to be proactive in their learning and effective communication between the student and instructor.

Grading Policy and Criteria to Determine Final Course Grade:

Videos, and guest speakers will be supplemental to the course

<table>
<thead>
<tr>
<th>Weighted grade distributions#</th>
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<tbody>
<tr>
<td>Internet (Research) Assignments (20 points each)</td>
</tr>
<tr>
<td>Midterm (Case Study) (100pts)</td>
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<tr>
<td>Final project (150 points)</td>
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</tbody>
</table>
A=100-90%
B=89-80%
C=79-70%
D=69-60%

Note: 89.9999999999999999 is still a B when converted to a percentage.

Criteria for Assignments
All assignments are required to have:
- Name, Class, and date in the upper right-hand corner
- All sources will be in APA 6th Edition
- Title of assignment will be centered on the top of the page
- Grammar and spelling must be checked before uploading assignment

THESE FOUR REQUIREMENTS ARE NOT MET; THERE IS A 10 POINT DEDUCTION FOR NO REFERENCE AND 5 POINT DEDUCTION FOR WRONG FORMAT.

Date of Final Exam:
December 12, 2013

Calendar/Schedule:

<table>
<thead>
<tr>
<th>Date</th>
<th>No.</th>
<th>Topic/Activity</th>
<th>Pgs./Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 28</td>
<td>1</td>
<td>Welcome/Introductions</td>
<td></td>
</tr>
<tr>
<td>Aug 28</td>
<td>2</td>
<td>CHAPTERS 1 &amp; 2</td>
<td></td>
</tr>
<tr>
<td>Aug 28</td>
<td>3</td>
<td>Assignment</td>
<td></td>
</tr>
<tr>
<td>Sept 4</td>
<td>4</td>
<td>CHAPTERS 3 &amp; 4</td>
<td></td>
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<tr>
<td>Sept 4</td>
<td>5</td>
<td>Assignment</td>
<td></td>
</tr>
<tr>
<td>Sept 11</td>
<td>7</td>
<td>CHAPTER 5- Developing the TPM Implementation Plan</td>
<td>81-89</td>
</tr>
<tr>
<td>Sept 11</td>
<td>8</td>
<td>Assignment</td>
<td></td>
</tr>
<tr>
<td>Sept 18</td>
<td>9</td>
<td>CHAPTER 6- Preventive Maintenance</td>
<td>90-107</td>
</tr>
<tr>
<td>Sept 18</td>
<td>10</td>
<td>Assignment</td>
<td></td>
</tr>
<tr>
<td>Sept 25</td>
<td>11</td>
<td>CHAPTER 7- Maintenance Inventory Controls</td>
<td>108-121</td>
</tr>
<tr>
<td>Sept 25</td>
<td>12</td>
<td>Assignment</td>
<td></td>
</tr>
<tr>
<td>Oct 2</td>
<td>13</td>
<td>CHAPTER 8-Improving Maintenance Efficiency and Effectiveness</td>
<td>129-144</td>
</tr>
<tr>
<td>Oct 2</td>
<td>14</td>
<td>Assignment</td>
<td></td>
</tr>
<tr>
<td>Oct 9</td>
<td>15</td>
<td>CHAPTER 9-Maintenence Information Systems (ANNOUNCEMENT OF FINAL PROJECT)</td>
<td>129-144</td>
</tr>
<tr>
<td>Oct 9</td>
<td>16</td>
<td>Assignment</td>
<td></td>
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<tr>
<td>Oct 16</td>
<td>17</td>
<td>CHAPTER 10-Capacity Assurance Technicians</td>
<td>145-153</td>
</tr>
<tr>
<td>Oct 16</td>
<td>18</td>
<td>Assignment</td>
<td></td>
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<tr>
<td>Oct 23</td>
<td>19</td>
<td>CHAPTER 11-Total Economic Maintenance</td>
<td>154-167</td>
</tr>
<tr>
<td>Oct 23</td>
<td>20</td>
<td>Assignment</td>
<td></td>
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<tr>
<td>Oct 30</td>
<td>21</td>
<td>MID TERM-CASE STUDY</td>
<td>-</td>
</tr>
<tr>
<td>Nov 6</td>
<td>22</td>
<td>CHAPTER 12-Team-Based Maintenance</td>
<td>168-175</td>
</tr>
<tr>
<td>Nov 6</td>
<td>23</td>
<td>Assignment</td>
<td></td>
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<tr>
<td>Nov 13</td>
<td>24</td>
<td>Progress report on final presentation (no points)</td>
<td>Nov 13</td>
</tr>
<tr>
<td>Nov 13</td>
<td>27</td>
<td>CHAPTER 14-The Future of TPM</td>
<td>181-183</td>
</tr>
<tr>
<td>Nov 13</td>
<td>29</td>
<td>CHAPTER 15-Maintaining the TPM Vision</td>
<td>184-194</td>
</tr>
<tr>
<td>Nov 20-23</td>
<td>25</td>
<td>ATMAE Conference (NO CLASS)</td>
<td>-</td>
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</tbody>
</table>
Semester Schedule
A daily or weekly schedule is not a required part of or required addendum to a syllabus. It does, however, help keep the course on track throughout a semester, help the instructor from "running out of time" at the end of a course, enable students to always see what is coming up, enable them to see where classes fit into the plan, and evidence good planning and organization. It also saves the instructor significant planning time during the course. It is particularly important for an Internet course, because of the different times students "attend" classes and the logistical problems caused by changing things or improvising "on the fly."

Date to Withdraw Without Penalty:
October 28, 2013

Using Blackboard for Turning in Assignments
Blackboard will be the tool for turning in assignments. The only exception to turn in an assignment after the due date is if you are ill (with a written excuse) or technical difficulties.

Communication between Instructor and Student
Please allow 1 to 3 days to respond back to you because I have two other courses to teach. Thank you for your patience.

Attendance and Make-Up Policy:
Attendance is expected in this course in order to achieve maximum learning for all participants. Unforeseen circumstances do sometimes arise, so periodic absences may occur. If you find that you must miss a class meeting, please contact the instructor prior to the start of class. If a student is sick or have a death in the immediate family, the instructor will discuss the arrangements for turning in make-up work. The student must have written proof too make up an assignment or exam.

Writing Assistance
Each student is entitled to free writing assistance in the Writing Center. Students who take advantage of this service will receive five extra points on essay grades if they take their drafts to the Writing Center. The student must provide documentation that he or she received assistance in the Center. An appointment is strongly advised.

Department Website: www.uttyler.edu/hrdt

Students Rights and Responsibilities
To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: http://www2.uttyler.edu/wellness/rightsresponsibilities.php

Grade Replacement/Forgiveness and Census Date Policies
Students repeating a course for grade forgiveness (grade replacement) must file a Grade Replacement Contract with the Enrollment Services Center (ADM 230) on or before the Census Date of the semester in which the course will be repeated. Grade Replacement Contracts are available in the Enrollment Services Center or at http://www.uttyler.edu/registrar. Each semester’s Census Date can be found on the Contract itself, on the Academic Calendar, or in the information pamphlets published each semester by the Office of the Registrar. Failure to file a Grade Replacement Contract will result in both the original and repeated grade being used to calculate your overall grade point average. Undergraduates are eligible to exercise grade replacement for only
three course repeats during their career at UT Tyler; graduates are eligible for two grade replacements. Full policy details are printed on each Grade Replacement Contract. The Census Date is the deadline for many forms and enrollment actions that students need to be aware of. These include:

- Submitting Grade Replacement Contracts, Transient Forms, requests to withhold directory information, approvals for taking courses as Audit, Pass/Fail or Credit/No Credit.
- Receiving 100% refunds for partial withdrawals. (There is no refund for these after the Census Date)
- Schedule adjustments (section changes, adding a new class, dropping without a “W” grade)
- Being reinstated or re-enrolled in classes after being dropped for non-payment
- Completing the process for tuition exemptions or waivers through Financial Aid

State-Mandated Course Drop Policy
Texas law prohibits a student who began college for the first time in Fall 2007 or thereafter from dropping more than six courses during their entire undergraduate career. This includes courses dropped at another 2-year or 4-year Texas public college or university. For purposes of this rule, a dropped course is any course that is dropped after the census date (See Academic Calendar for the specific date).

Exceptions to the 6-drop rule may be found in the catalog. Petitions for exemptions must be submitted to the Enrollment Services Center and must be accompanied by documentation of the extenuating circumstance.

Please contact the Enrollment Services Center if you have any questions.

Disability Services
In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University offers accommodations to students with learning, physical and/or psychiatric disabilities. If you have a disability, including non-visible disabilities such as chronic diseases, learning disabilities, head injury, PTSD or ADHD, or you have a history of modifications or accommodations in a previous educational environment you are encouraged to contact the Student Accessibility and Resources office and schedule an interview with the Accessibility Case Manager/ADA Coordinator, Cynthia Lowery Staples. If you are unsure if the above criteria apply to you, but have questions or concerns please contact the SAR office. For more information or to set up an appointment please visit the SAR office located in the University Center, Room 3150 or call 903.566.7079. You may also send an email to cstaples@uttyler.edu

Student Absence due to Religious Observance
Students who anticipate being absent from class due to a religious observance are requested to inform the instructor of such absences by the second class meeting of the semester.

Student Absence for University-Sponsored Events and Activities
If you intend to be absent for a university-sponsored event or activity, you (or the event sponsor) must notify the instructor at least two weeks prior to the date of the planned absence. At that time the instructor will set a date and time when make-up assignments will be completed.

Social Security and FERPA Statement:
It is the policy of The University of Texas at Tyler to protect the confidential nature of social security numbers. The University has changed its computer programming so that all students have an identification number. The electronic transmission of grades (e.g., via e-mail) risks violation of the Family Educational Rights and Privacy Act; grades will not be transmitted electronically.

Emergency Exits and Evacuation:
Everyone is required to exit the building when a fire alarm goes off. Follow your instructor’s directions regarding the appropriate exit. If you require assistance during an evacuation, inform your instructor in the first week of class. Do not re-enter the building unless given permission by University Police, Fire department, or Fire Prevention Services