Course Title: Enterprise Resource Planning Systems

Course Objectives
In this course you will be presented with the fundamentals of ERP, the importance of securing and controlling certain transactions for the integrity, confidentiality, authenticity and reliability of information. Topics include:

1. What are business processes
2. What is an ERP system and how it is used within organizations to support business processes
3. How do organizations control its business processes leveraging ERP
4. What fraud risks can exist in business processes and how can operational controls address them?
5. What are business process / operational controls?
6. What are different types of controls and pros and cons of each?
7. What are the differences between business application and process controls vs. General IT Controls?
8. How are business controls audited?
9. What are the fundamentals of ERP system security?
10. What are segregation of duties risks in ERP systems and how are they managed?
11. Is the organization assessing and managing its control environment?
12. What is Governance Risk & Compliance and its importance for ERP?

By examining how an organization can secure and control its ERP for an effective control environment, we understand the features and functions available for the integrity, confidentiality and reliability of information required for regulatory, operational and financial controls.

Grading

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Participation</td>
<td>25%</td>
</tr>
<tr>
<td>Case Studies</td>
<td>35%</td>
</tr>
<tr>
<td>Exams (3)</td>
<td>40%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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</tbody>
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Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
<th>Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94-100</td>
<td>73-76</td>
</tr>
<tr>
<td>A-</td>
<td>90-93</td>
<td>70-72</td>
</tr>
<tr>
<td>B+</td>
<td>87-89</td>
<td>67-69</td>
</tr>
<tr>
<td>B</td>
<td>83-86</td>
<td>63-66</td>
</tr>
<tr>
<td>B-</td>
<td>80-82</td>
<td>60-62</td>
</tr>
<tr>
<td>C+</td>
<td>77-79</td>
<td>Below 60</td>
</tr>
<tr>
<td>F</td>
<td>Below 60</td>
<td></td>
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</tbody>
</table>

Participation

Much of your learning will occur as you prepare for and participate in discussions about the course content. The assignments, cases, and readings have been carefully chosen to bring the real world into class discussion while also illustrating fundamental concepts.

To encourage participation, 25% of the course grade is earned by preparing before class and discussing the topics in class. Evaluation is based on you consistently demonstrating your engagement with the content. Assessment is based on what you contribute, not simply what you know.
1) **Preparation before class**

   a. **Reading Summary:** Prepare a one (1) page summary of the reading materials. Your summary will briefly address and summarize the following 3 items. Focus on quality and brevity. I may stop reading after the 2nd sentence for any response.
      
      i. One specific point you took from the assigned reading (one or two sentences per reading).
      
      ii. One specific point you learned from the readings as a whole (one or two sentences).
      
      iii. One question that you may likely ask your fellow classmates that facilitates discussion.

   b. **Real World Control Failure:** Each class will begin with a brief review of a real world scenario that represents a control failure in some organization and the ramifications of that failure.

      Each student is responsible for finding a real world example and preparing a brief review using a PowerPoint (PPT) format will be provided for this purpose. The student is responsible for presenting this review at the beginning of a class (starting with class 7) based on an agreed sign-up schedule.

2) **Participation during class** – We will typically start each discussion with “opening” questions. I may ask for volunteers, or I may call on you. Students should be prepared to discuss the topics or assigned readings.

   The criteria for participation includes attendance, punctuality, level of preparation, professionalism, answering questions, discussing readings, discussing case studies, contributing to group activities, and contributing to a positive learning environment. Recognizing that students sometimes have unavoidable conflicts, the baseline for expected participation is assessed on one less week than the number of assigned weekly write-ups.

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### Reading assignment:

<table>
<thead>
<tr>
<th>#</th>
<th>Text Book - Chapters</th>
<th>Due Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Auditing and GRC Automation in SAP - Chapters 1, 2, 3.1 and 11</td>
<td>January 23</td>
<td>11:59 PM</td>
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<tr>
<td>2</td>
<td>Auditing and GRC Automation in SAP – Chapters 9.1, 9.2, 9.3 and 12</td>
<td>February 1</td>
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<td>3</td>
<td>Auditing and GRC Automation in SAP – Chapter 10</td>
<td>February 8</td>
<td>11:59 PM</td>
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<tr>
<td>4</td>
<td>Auditing and GRC Automation in SAP – Chapters 5.2 and 8</td>
<td>March 8</td>
<td>11:59 PM</td>
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<tr>
<td>5</td>
<td>Auditing and GRCx Automation in SAP – Chapter 9.4</td>
<td>March 15</td>
<td>11:59 PM</td>
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<tr>
<td>6</td>
<td>TBD</td>
<td>March 29</td>
<td>11:59 PM</td>
</tr>
<tr>
<td>7</td>
<td>Auditing and GRC Automation in SAP - Chapters 6.1 and 6.2</td>
<td>April 5</td>
<td>11:59 PM</td>
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<tr>
<td>8</td>
<td>Auditing and GRC Automation in SAP - Chapters 6.3 and 7</td>
<td>April 12</td>
<td>11:59 PM</td>
</tr>
<tr>
<td>9</td>
<td>Auditing and GRC Automation in SAP - Chapter 4.3</td>
<td>April 26</td>
<td>11:59 PM</td>
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</table>
**Case Studies**

1. **Exercises:** We will use a teaching SAP client instance to complete the following case exercises. The exercises require successful completion of transactions and analysis on a defined teaching SAP client instance.

   The first 2 exercises must be completed and submitted individually. The last 3 will be completed and submitted by assigned small teams (2-3 people / team). The exercises must be completed by the defined deadline in the defined client instance. Note: remote access is possible outside the classroom.

<table>
<thead>
<tr>
<th>#</th>
<th>Exercise</th>
<th>Due Date</th>
<th>Due Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SAP ERP GBI (Global Bike Inc.) – Procure to Pay</td>
<td>February 5</td>
<td>11:59 PM</td>
</tr>
<tr>
<td>2</td>
<td>SAP ERP GBI (Global Bike Inc.) – Order to Cash</td>
<td>February 26</td>
<td>11:59 PM</td>
</tr>
<tr>
<td>3</td>
<td>SAP ERP GBI (Global Bike Inc.) – Journal Entries</td>
<td>March 19</td>
<td>11:59 PM</td>
</tr>
<tr>
<td>4</td>
<td>SAP ERP GBI (Global Bike Inc.) – SOD (Segregation of Duties)</td>
<td>April 2</td>
<td>11:59 PM</td>
</tr>
</tbody>
</table>

2. **Final:** This assignment will be completed and submitted by the same assigned small teams (2-3 people / team) from the team exercise assignments. More details will be presented in class but will require the team to create and audit an internal controls framework for a chosen area. A template will be provided. There is some time allotted during the class sessions to work on your assigned case study. It is expected that you will email me your presentation no later than April 30, 2015 at 5:00 PM. **Late submissions for this deadline will result in no credit earned for this assignment**

   There is no one particular style for a good case study analysis. But, there are some common elements to consider (additional, grade-specific criteria are provided at the end of this syllabus):

   - The opening of the analysis makes it clear which case study and what questions / control issues are being addressed.

   - You have cited specific details regarding specific facts and issues of the case. Instead of general observations about information technology or organizations, draw details from the case study itself. Analyses, observations, and suggestions should be tied directly to those certain facts and issues. You can also draw on the other readings in the course to inform and support your arguments.

   - After analyzing the details of the case study, discuss how its specific issues have broader application. In other words, use your analysis to provide some advice to managerial decision-makers that can be applied to other situations beyond this case.

   - Provide a balanced perspective. For example, when making a recommendation explain the pros and cons, providing both the rationale (the why) as well as its feasibility (the how). Well-considered recommendations include discussion of potential issues with your solution and conditions that should be in place for your recommendation to be successful.

   - In your summary discuss how your team was organized and work completed. Effective teams provide insights gleaned from the case study analysis.
MIS 5121: ERP Systems - Syllabus

Exams

There will be three (3) exams during the semester. Two exams will occur in during class time and the final exam during Final Exam week. Together these exams are weighted 40% of your final grade.

In general, the exams will not be cumulative but focused on the course materials since the beginning of last exam. However, some concepts highlighted in class as a ‘Core Principle’ or ‘This may be on the Final’ may appear on any of the exams.

All exams will consist of multiple-choice, fill in the blank and short answer questions.

<table>
<thead>
<tr>
<th>Readings</th>
</tr>
</thead>
</table>
| **Text Book** | Auditing and GRC Automation in SAP by Chuprunov, Maxim. Published by Springer – Galileo Press, 2013  
Chapters: 1 – 12  
http://www.amazon.com/Auditing-GRC-Automation-Maxim-Chuprunov/dp/3642353010 |
| **Case Study** | SAP ERP GBI (Global Bike, Inc.) |

<table>
<thead>
<tr>
<th>Additional references</th>
</tr>
</thead>
</table>
| Monitoring Internal Control Systems and IT: A Primer for Business Executives, Managers and Auditors on How to Embrace and Advance Best Practices, ISACA, 2010 (complimentary download for ISACA members: https://www.isaca.org/bookstore/Pages/default.aspx )  
Chapters 3 & 4 |
| **ASUG** | Sharp Electronics’ Advice for SAP BusinessObjects GRC 10 Projects, by Courtney Bjorlin, 2011, ASUG  

Schedule

See the Schedule tab in the class page:

http://community.mis.temple.edu/mis5121beaver/
# Grading Criteria

The following are the criteria used for evaluating assignments. You can roughly translate a letter grade as the midpoint in the scale (for example, an A- equates to a 91.5).

## Additional Information

### Availability of Instructor
- Please feel free to contact me with any issues related to this class. I will also be available at the end of each session. Please note that these discussions are to address questions/concerns but are **NOT** for helping students catch up on content they missed because they were absent.  
  **Note:** I will respond promptly when contacted during the week and possibly Saturday. I do not respond on Sunday's.

### Attendance Policy
- Class discussion is intended to be an integral part of the course. Therefore, full attendance is expected by every member of the class.
- If you are absent from class, speak with your classmates to catch up on what you have missed.

### Class Etiquette
- Please be respectful of the class environment.
- Class starts promptly at the start time. Please make EVERY effort to be on time.
- Cell phones must be turned off and put away during class.
- Refrain from personal discussions during class. Please leave the room if you need to speak to another student for more than a few words. If a student cannot refrain from engaging in private conversation and this becomes a pattern, the students will be asked to leave the classroom to allow the remainder of the students to work.

### Exams
- There will be two exams during the semester. Make up exams will be considered only for validated unusual and unforeseen situations.
- No make-up is possible for the final exam.

### Appropriate use of Technology in the classroom
- Please turn off cell phones at the start of class. If you have an urgent, personal situation and may be receiving an important phone call during class, please let me know this at the beginning of class, sit near the door, and step out of the classroom if you need to take a call.
- Several of the case Exercises require successful completion of transactions and analysis on a defined teaching SAP client instance. These exercises must be completed by the defined deadline in the defined client instance. However, remote access is possible outside the classroom.
- Please bring your laptop or tablet to class. Except during Exams or quizzes, you are free to use them to take notes and augment the classroom experience.

## Plagiarism, Academic Dishonesty and Citation Guidelines

If you use text, figures, and data in reports that was created by others you must identify the source and clearly differentiate your work from the material that you are referencing. If you fail to do so you are plagiarizing. There are many different acceptable formats that you can use to cite the work of others (see some of the resources below). The formats are not as important as the intent. You must clearly show the reader what is your work and what is a reference to somebody else’s work.

Plagiarism is a serious offence and could lead to reduced or failing grades and/or expulsion from the university. The Temple University Student Code of Conduct specifically prohibits plagiarism (see http://www.temple.edu/assistance/udc/cooc.htm).
The following excerpt defines plagiarism:

*Plagiarism is the unacknowledged use of another person’s labor, ideas, words, or assistance. Normally, all work done for courses — papers, examinations, homework exercises, laboratory reports, oral presentations — is expected to be the individual effort of the student presenting the work. There are many forms of plagiarism: repeating another person’s sentence as your own, adopting a particularly apt phrase as your own, paraphrasing someone else’s argument as your own, or even presenting someone else’s line of thinking in the development of a thesis as though it were your own. All these forms of plagiarism are prohibited both by the traditional principles of academic honesty and by the regulations of Temple University. Our education and our research encourage us to explore and use the ideas of others, and as writers we will frequently want to use the ideas and even the words of others. It is perfectly acceptable to do so; but we must never submit someone else’s work as if it were our own, rather we must give appropriate credit to the originator.*


For a more detailed description of plagiarism:
- Princeton University Writing Center on Plagiarism: http://web.princeton.edu/sites/writing/Writing_Center/WCWritingRes.htm
- How to successfully quote and reference material:
  - University of Wisconsin Writers Handbook http://www.wisc.edu/writing/Handbook/QuotingSources.html
- How to cite electronic sources:
  - Electronic Reference Formats Recommended by the American Psychological Association http://www.apastyle.org/elecmedia.html

Acknowledgements
Thanks to Rich Flanagan and John Calnan for their assistance in preparing this syllabus.