EMPORIA STATE UNIVERSITY
SCHOOL OF BUSINESS
Department of Accounting and Information Systems
Course Syllabus – Spring 2012

COURSE NUMBER AND TITLE: IS 543 – Business Intelligence
PREREQUISITES: IS 113
CLASS MEETING TIME: Tue & Thu – 11:00 am to 12:20 pm
CLASSROOM: CH 320
INSTRUCTOR: Dr. Ron Freeze
OFFICE: CH 105
TELEPHONE NUMBER: (620) 341-5685
EMAIL ADDRESS: rfreeze@emporia.edu
HOME PAGE: http://elearning.emporia.edu
OFFICE HOURS: Tue & Thu, 8:00 am to 11:30 am (& via appointment)

All e-mails correspondence should have “IS543” at the start of the subject line.

Suggested Texts & Purchases:
This recommendation is made in case you feel the need for additional practice using Access and Excel and is the only text suggested. There will be no teaching directly from these text, but it is expected that you already know all concepts from these texts. If you have taken IS 113 since Spring, 2008 and have the assigned textbook from that semester forward, you already have these suggested texts.

Microsoft Office Access 2007 Introductory, 1st Edition
Linda I O’Leary, Independent Softcover, 672 pages
MHID 0073294551

Microsoft Office Excel 2007 Introduction, 1st Edition
Linda I O’Leary, Independent Softcover, 672 pages
MHID 0073294527

This course also recommends each student to purchase and register with the Simulation software referred to as SimNet. The URL to log into the Simnet website is https://emporiastate.simnetonline.com/. You may still have access to SimNet from IS 113 requirements. There are self-help sections and trial exercises to step you through some of the basic uses.

Required Purchases:
Each individual will also be required to purchase access to the ERP Simulation. This Business simulation will provide the Access database that will be the basis of all course requirements. The cost for this and the signup procedure will be discussed in the first day of class and be included in the PowerPoint slides for that day. This purchase will also provide access, through the HEC Learning Portal, to additional materials that will be required for the course.

Supplemental Materials:
Computer & Internet Access
Proficiency in Microsoft 2010 Access and Excel Applications
Microsoft Word 2010 Application (possible)
Remote Desktop Connection (See Handout posted on BlackBoard for SkyLab access procedures)

**Course Description:**
This course is designed to enhance and expand the knowledge and skill for use as Business Intelligence (BI) the areas of business and data analytics. A primary method of learning these skills will be the application areas of spreadsheet and database design. The skills will be developed in a Business Simulation environment in which the students will run their own organization to generate the data with which to apply BI applications. The Business Simulation will be played at various times during the semester to provide the database where new BI techniques will be learned and applied. Several additional Business Simulation will be played throughout the semester with a “organizational” presentation showing how the skills learned during the semester were applied during the simulation. Prior basic skills in spreadsheet design and database use are required. **In addition, students will receive data from other courses to analyze and return to those courses for use during future quarters of their simulations.**

**Course Objective:**
Advanced use of both Microsoft Excel (spreadsheet design) and Access (database design) and their use to acquire Business Intelligence is the objective of this course. Design and presentation of data representations is critical in a business environment and the ability to adapt these tools to facilitate a decision setting is integral to mastering advanced aspects of these tools and prepare for the use of additional decision-making aids you may encounter in the workforce. The ability to transfer data from Excel to Access and vice versa will be a necessary aspect for completing this course.

**Skylab:**
The reason for introducing you to Skylab is the ability to use applications remotely. NOTE: no homework will be accepted that is not presented in the standard Microsoft 2010 Office application format. Everyone has access to the necessary applications through Skylab. You should review the Skylab document under Course Contents on BlackBoard. DO THIS FIRST AFTER READING THE SYLLABUS. Contact Dr. Freeze with any difficulties in accessing the Skylab.

**Learning Activities:**
There are several methods you will utilize for learning the advanced topics of spreadsheet and database applications. The initial activity is a requirement that you know the basics concerning the environment in which your “organization” will operate. This requires a minimal understanding of the business simulation hereafter referred to as ERPsim. Once you have obtained access to the Learning Portal, you will need to download the Participants Guide. An open book, open notes exam will be available on BlackBoard for you to take over this material and is labeled as the Participants Guide Exam.

The second activity in class will be the procurement and use of an Access database (resulting from an ERP Simulation) containing information and knowledge concerning the organization’s ability to function in a competitive business environment. Data visualizations will be presented in the form of Access Reports, Excel Charts and dynamic Dashboards (hopefully). All of these data visualizations will utilize advanced skills in Excel and Access and require each individual to download and update their reports and charts during the business simulation (see Individual Use). The focus of this activity is to mine data from this source in order to apply BI to future decisions relating to organizational goal success (all ERP Simulations in the semester).

The third activity relates to Individual Assessments and Group Assessments of your ability to create, interpret and explain the reports and charts you have developed. This will occur twice in
the semester for the individual assessment. The group assessment will be based on .pdf charts and reports generated for “other” course usage. See the Schedule of Assignments for the targeted dates of these assessments.

The final learning activity will be the Presentations that each group will give at the end of the semester. The groups will be divided by a functional business area and report on how they supported their organizations.

Participants Guide Exam:
Two Participant Guide Exams have been set up to insure your knowledge of the ERPsim market environment and provide the basic ability to navigate the simulation. The requirements of the exam, and ability to get points, have been set up with a real work environment in mind. First, understanding your organization and its work environment is your responsibility. There will be some review in class but the majority of this study is yours. Second, there is a limited amount of time to learn about your organization and the market environment in which you work. Think of this as your first few weeks on the job. If you do not understand what is required, you will not succeed. As such, the first exam, as your basic knowledge, will only be available to a certain point in the semester and a minimum score of 80% must be achieved or no credit will be given for the exam (see Schedule of Assignments for when the exam must be completed). Also similar to a real job, the understanding is what is important. Therefore, you can take the first exam as many times as you require to achieve the minimum 80%. All questions were designed directly from the participants guide. However, the questions are randomly selected for each time you take the exam. This means that each time you take the exam you will see different questions. The deadline is firm for the first exam and no exceptions will be made.

The 2nd exam will be later in the semester and consists of 75 questions that are randomly selected from a data bank. While this exam is also open book and open notes, you are only allowed to take this exam once as by the time you take this exam you are expected to be very familiar with the simulated market and simulation environment. The questions were not designed to be the same level of ease, but do come directly from the guide. READ THE PARTICIPANTS GUIDE AGAIN AND MAKE NOTES FIRST PRIOR TO TAKING THE EXAM. This will prepare you for doing well on the 2nd exam.

NOTE: Much of this exam will help you with the transactional knowledge you need to be successful in the simulation and course. Getting “HELP” from your fellow students in passing the first and 2nd exam will hurt you when you get to the simulation, individual use and individual reviews in this course. DO THIS ON YOUR OWN.

Individual Use:
The current schedule calls for the business simulation to be ran a minimum of four times over the course of the semester. At each simulation, two quarters will be run (eight total quarters). Each student should prepare their Access database (& Excel spreadsheet) for importing and updating the reports (& charts) they have created. After the first quarter is run, an Access database will be posted to BlackBoard containing the data. You will be required to download the database, update your database in order to facilitate your organization’s decisions during the second quarter. You will be required to make use of your reports during the second simulation period for each of the four simulations. Again, there is no possibility of making up these points since the opportunity to assist your organization in making decisions will have been lost. The criteria for which you will be graded during the second quarter of the simulation will be reviewed during class.

Individual Assessments:
Success in this course will be highly dependent on your individual effort. The individual assessments are designed to provide a one on one review with the professor concerning how
much you know and how well you have developed the currently assigned ERPsim report or chart. The time allotted for discussion will be short and the assessed grade will be based on your preparation and the number of topics you can clearly address. YOU ARE DRIVING THIS SESSION. I will ask questions and explore the LIMITS OF YOUR KNOWLEDGE. Do not be afraid of this and prepare adequately with the techniques learned in class. Additional guidelines for grading will be provided in class.

**Group Assessments:**
All of the class will be assigned to work with a specific functional group (Financial, Procurement, Sales and Production). Graduate students will be assigned the responsibility for coordinating group activities, advising on organizational assignments and potentially assigning questions received from other courses to individuals. (Assignment may be incorrect here as a better method is to volunteer for report/chart development. However, needs will be generated from other course assignments and it will be the groups responsibility to address these needs.)

There are currently four or five times during the semester that an access database will be available from other courses in which your group will be responsible for generating .pdf reports/charts. The group will be graded on a combination of usefulness and completeness of the reports. Feedback on the reports will be provided by both the course for which the report was intended and your professor.

**Presentations:**
The presentations at the end of the semester will focus on the functional group achievements. The focus of these presentations is twofold. The first goal is to outline the different reports generated for the functional groups and the usefulness of the reports during the simulation. The second goal is to outline the organization of the groups and how effective that organization was in assigning use and constructing the reports and charts.

**Surveys:**
There are several surveys that are utilized to help assemble the teams for the simulation and determine how the teams have interacted with each other during the simulation. One of the critical aspects of Business Intelligence is the ability to know what information is necessary to reach a decision as well as where or who to communicate that need. The initial survey will be used to assemble the groups and capture the knowledge and skills within each group. Subsequent survey’s will be used to assess how well each team communicated during the course of the simulation. Fill out the surveys truthfully as these are tools for course improvement and full credit is given for filling out the survey regardless of the answers.

**Peer Evaluations:**
You will be required to fill out a functional peer group evaluation form in which you will be asked to rank order all group members as “most knowledgeable” and assign bonuses (tied members would receive the same bonus amount). This will be done close to the end of the semester. Please review the following section to assist with any problems that may occur within the functional groups.

**Unfair work load allocation on group project(s)**
On occasion, students will find themselves working in a group wherein a group member has the tendency to act as a "free-loader". This poses a problem for the group as well as the individual member who will one day realize that this attitude won’t cut it in the real world. This course does incorporate the ability to react to this situation. The most notable way is the individual assessments and use aspects. A “free-loader” will be recognized by their lack of understanding and the grade will reflect this accordingly. Since the groups will be providing assistance to the
Policy organizations, a “free-loader” will not be contributing unique reports/charts to the functional group. Recognizing and addressing this situation can be accomplished by following the steps indicated below:

1. Groups must directly and openly confront instances of such behavior as early as possible (the earlier the better but definitely prior to the first simulation in the course). Ideally, once confronted, the behavior will cease and no further steps are required.

2. If early efforts to confront the problem fail, the team lead should communicate the problem with their instructor. An attempt to contact and communicate with the team member not contributing will be made. The team member will be informed that they need to step up their contributions. Hopefully, the behavior will then cease and no further steps are required.

3. If the problem continues after steps 1 and 2, the team members should fill out their Peer Evaluations accordingly. The instructor will reduce the grade for the individual member(s) whose behavior has caused the problem. This reduction can result in receiving a zero for all group work.

Exams:

There will be a mid-term exam and a final exam that is application based in which you will interpret a dataset from a simulation in which you did not participate. The mid-term exam will be using Access reports from a switchboard. The final exam will use both Access reports and Excel PivotTables/Pivotcharts. For the final exam, you will also be required to modify an existing report in order to answer additional questions. Any additional aspects of the exam will be discussed in class.

Graduate Assignment: (Graduates Only)

In order to obtain graduate credit for this course, graduate students are expected to provide a more involved participation in the course content. This greater involvement will be measured on the group leadership provided, ability to assess a 2nd functional group and possibly build a trial Dashboard for use during the simulation.

Providing group leadership is perhaps the most straightforward activity. As indicated in the Group Assessments section, you will be expected to provide a leadership role for the functional group for which you are assigned. This leadership includes coordinating group members report building to meet organizational needs, reviewing assembled reports of students for accuracy and analytics, suggesting assignments of BI support for groups, etc. Since there are only four functional groups, there may be two or more graduate students per group. Responsibilities should be shared but remember that a 2nd functional area of expertise is needed for each graduate student. I would suggest each take a lead role in one group and a secondary role in the second group. Graduate students should expect to attend both functional area Group Assessment meetings. This means that you should also contribute reports for each functional group. Your individual assessments will also include questions on both functional areas.

The dynamic Dashboard is a beta project that we may be doing in conjunction with other universities. Details on this endeavor are still being developed and this aspect of your graduate work will be announced as they are determined.

Submission of All Assignments:

At this point you should realize that the majority of this course is completely hands on and the evaluation is constantly concerned with your ability to develop and relay information gleaned from the decisions made during the simulation. The overriding consideration for this course is that communication is critical for successful use of BI applications in a business environment.
With this imperative in mind, during all of the assessment and use sessions, simple mistakes in grammar, punctuation and formatting will be viewed poorly and result in point deductions. Attention to detail in what you present is a required skill. For the group assessments, you need to critique each other’s work as the same standard applies.

Make sure that those assignments (mostly the surveys) you do submit through blackboard are prior to the stated deadline. The files submitted must follow these guidelines.

All files should be named according the following convention.
FreezeAcc1-IS543.xlsx – example
Your last name is first and should replace Freeze in the example
Acc1 stands for which project is assigned (Access Project 1)
IS543 indicates the course number
.xlsx indicates an Excel file in the 2007 format (all Excel assignments are in this format)

All assignments must be submitted using the ASSIGNMENTS section in blackboard. The naming conventions above are applicable.

**Final Grade:**

The final grade will depend on the class distribution. Each student’s score will be computed at the end of the semester and rank ordered. The class will then be divided into appropriate clusters, and letter grades of A, B, C, D, and F assigned. However, a general grading scale might be as follows:

- **A:** 90% and higher
- **B:** 80.0% - 89.9%
- **C:** 70.0% - 79.9%
- **D:** 60.0% - 69.9%
- **F:** below 60.0%

**Course Grading:**

The evaluation will be based upon total points obtained from examinations, labs, assigned projects and your presentations. Your grade will be determined by the percent of points accumulated and are approximately as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants Guide Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Individual Use (4)</td>
<td>20%</td>
</tr>
<tr>
<td>Individual Assessment (2)</td>
<td>10%</td>
</tr>
<tr>
<td>Group Assessment (2)</td>
<td>10%</td>
</tr>
<tr>
<td>Presentations</td>
<td>10%</td>
</tr>
<tr>
<td>Surveys (5)</td>
<td>10%</td>
</tr>
<tr>
<td>Peer Evaluations</td>
<td>5%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</tbody>
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Note: Students taking this course for graduate credit need to make sure they review the Graduate Assignment section. You must receive a letter grade of an A or B on this assignment in order to receive graduate credit.

**Withdrawal Policy:**

The option of the instructor to initiate student withdrawal for excessive student absences does not apply to this course. Students who decide to withdraw and receive an automatic “W” must complete the formal withdrawal procedure by **Wednesday, March 28th, 2012.** After that day, the student may not withdraw from a class nor may the instructor assign a “W”.

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Academic Dishonesty:
All students are expected to pursue their scholastic careers with honesty and integrity. Academic dishonesty includes, but is not limited to, activities such as cheating and plagiarism (presenting as one’s own the intellectual or creative accomplishments of another without giving credit to the source or sources). **Work on individual projects is assumed to be done by the individual whose name appears on the assignment, not as a collective effort.** If a student is discovered as participating in an act of academic dishonesty, they may be removed from the course with a grade of "F", and the matter may be referred for further action. Emporia State University may impose penalties for academic dishonesty up to and including expulsion from the university.

Disabled Student Policy:
Emporia State University will make reasonable accommodations for persons with documented disabilities. Students need to contact the Director of Disability Services and the professor as early in the semester as possible to ensure that classroom and academic accommodations are implemented in a timely fashion. All communication between students, the Office of Disability Services, and the professor will be strictly confidential. For your convenience, that information is 242 SE Morse Hall, 620/341-6637 Voice, 620/341-6646 TTY, or via e-mail disabser@emporia.edu.

Late Assignment Policy:
For the majority of the work in this course, attendance at specific times are required to complete assignments. Having said this, in general, no late assignments will be accepted. Assignments given will generally be due by 11:00 PM of the day indicated on the Schedule of Assignments unless otherwise noted through blackboard. As a matter of fact, you will not be able to submit your assignments after the due date is passed because the link to the assignment will no longer be available. If I chose to accept any work late, a deduction of up to 50% of the assignment value may be imposed after the assignments have been graded.

Schedule of Assignments:
The schedule at the end of this syllabus will serve as a guide for the course and is subject to modification. The assignments are due on the date indicated. It is your responsibility to start the assignment early enough to complete the work by the deadline.

THE INSTRUCTOR RESERVES THE RIGHT TO MAKE CHANGES TO THE SYLLABUS AS NECESSARY. ANNOUNCEMENTS COMMUNICATED THROUGHOUT THE SEMESTER WILL OVERRIDE ANY STATEMENT MADE HERE OR IN ANY OTHER HANDOUTS. IT IS THE STUDENT’S RESPONSIBILITY TO BE AWARE OF THESE CHANGES AND ANNOUNCEMENTS.

THE SCHEDULE WILL BE POSTED PRIOR TO THE FIRST DAY OF CLASS.