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BMIS 373.01: Business Systems Analysis & Design

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BMIS 373
Business Systems Analysis & Design
Spring 2018

UNIVERSITY OF
MONTANA
COLLEGE OF BUSINESS

Professor Information

Professor:	Zachary L. Rossmiller, MBA
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Office:	GBB #341 Liberal Arts #031
Office Hours:	Wednesdays 3:30 pm – 4:30 pm (or available by appointment via e-mail)

Course Information

Time:	2:00 pm – 3:20 pm
Days:	Mondays and Wednesdays
Venue:	Gallagher Business Building (GBB) 201
Section:	01 (CRN#: 36308)
Credits:	3
Grading Mode:	Traditional letter grade
Final Exam:	None
Pre-requisites:	Satisfactory completion of all lower core courses
	Junior or Senior standing in Business

Catalog Description

Provides an understanding of the systems development and modification process, including requirements determination, logical design, physical design, test planning, implementation planning and performance evaluation.

Course Description

The focus of this course is the study of systems, and the principles of systems analysis and design. This course introduces you to organizational systems analysis and design, and presents ideas that provide powerful insights about a large spectrum of analysis and design issues. This course aims to give you a feeling for the problems and techniques of systems analysis and design, and the application of such techniques to real life business analysis problems.

Course Learning Objectives

- The foundations for systems development including its environment, origins of software, and managing the information systems project.
- The **planning** phase identifying, selecting, and planning systems development projects.
- The **analysis** phase of determining system requirements, structuring system process requirements, and building system data requirements.
- The **design** phase of structuring the databases, forms and reports, interfaces and dialogues, and distributed and internet systems.
- The **implementation** and maintenance of systems.
- Key diagrams and techniques for systems analysis and design
- Basic programming of a system using an object oriented programming application and web design
- Application of techniques for object oriented system analysis and design.

Course Learning Goals

This course provides a comprehensive presentation of the concepts, procedures, and tools necessary for building computer-based information systems. The primary objective is to develop skills necessary throughout the systems development cycle, including project management, data collection, analysis, design, testing, and documentation. In addition, the course is designed to familiarize students with the current literature pertaining to management issues surrounding information systems initiatives. Students will learn modeling and application development techniques that can be employed across a wide range of existing and future technologies to design and develop a prototype system for a client organization.

A secondary objective of this class is to gain an understanding of the dynamics associated with team-oriented systems development efforts. Virtually all contemporary development projects of any size are done in a team environment. As part of the course, students will learn to organize and manage teams in the context of a real-world development project. Through this process, students will be required to balance course and project requirements with individual, team, and client constraints. By taking responsibility for their own experience in the course, students will begin the process of lifelong learning about emerging technologies and systems development that will be useful throughout their career.

Course Materials

Modern Systems Analysis and Design, 8th Edition, Jeffrey A. Hoffer, Joey F. George, and Joseph S. Valacich, Prentice Hall (optional)

Course Grading Policies

Student performance will be measured along two (2) distinct achievement criteria, broken down as follows:

Criterion	Percentage	Points
Team Project	60%	150
Midterm Examinations (2)	40%	100
	100%	**250**

Grades will be conferred on a ± basis and comply with the ranges shown below. Please note that the College of Business requires students to attain a C- or better in all core classes.

Overall Percentage	Letter Grade
pct >= 93%	A
93% > pct >= 90%	A-
90% > pct >= 87%	B+
87% > pct >= 83%	B
83% > pct >= 80%	B-
80% > pct >= 77%	C+
77% > pct >= 73%	C
73% > pct >= 70%	C-
70% > pct >= 67%	D+
67% > pct >= 60%	D
60% > pct	F

The primary purpose of the team project is to provide an opportunity for each student to gain experience working directly with a client on the rapid development of a prototype for a real world information system. Teams will be assigned by the professor by the third week of the semester. Specific learning objectives for the team project include:

- Project management (including interpersonal communication)
- Requirements analysis
- System design
- Prototype development
- Quality assurance (including testing)
- Documentation

Student teams will be assigned to a client sponsor, who has been prearranged by the professor. The scope of the project should be kept as tightly controlled as possible, with an estimated time per student approximating 40 total hours. Design requirements for the final prototype will be decided collaboratively between teams and their sponsor. *Both the professor and the client sponsor will evaluate project deliverables*, with an emphasis placed on meeting (and exceeding when possible) client needs and requirements.

The team project will consist of four main deliverables as follows:

1. **Project Workbook (50 points).** The project workbook provides formal, written documentation describing the client and project specifications. Teams are responsible for keeping two copies of the project workbook – one for the client and one for the professor. Additional information regarding specific deliverables and deadlines will be made during class.

2. **Website Prototype (50 points).** Teams will build a working model of the website, which demonstrates the structure, content, navigation, and page layout.

3. **Team Presentation (50 points):** Each group will present their project to the client, the professor, and other teams working on their project.

4. **Peer Evaluation (points vary):** Students are required to submit a peer evaluation at the end of the semester. Each student will be asked to rate the performance of each team member on the project. Peer evaluations will be based on participation, contribution, willingness to help, and quality of work. All peer evaluations will be kept confidential. If desired, students may submit peer evaluations in a sealed envelope to ensure confidentiality.

   Peer evaluations will be used as a basis for adjusting individual scores on team projects. Each team project will be given a total team score. For each student, scores will be adjusted based on the quality of evaluations that the professor receives from the student's teammates. Students receiving the highest marks on their evaluations will be eligible for 100% percent of the team score. In contrast, students that receive sub-optimal evaluations will be eligible for only a percentage of the team score. For example, a student who puts forth an 80% effort on a team project will only receive 80% of the team score for that project. Therefore, *it is extremely important that students fully participate in team projects*.

Two examinations will be given during the course of the semester. The examination will cover material presented in the assigned readings, lectures, classroom discussions, in-class exercises, and assignments. A preparation guide, which describes the requisite knowledge and examination format, will be distributed prior to the scheduled examination.

Attendance Policy

As with any business profession, attendance is extremely important to succeed. Attendance is mandatory, meaning that students are expected to attend all class meetings and complete all assignments for this course. Class will start on time. Students are expected to be seated when class begins.

Attendance will be taken on a random basis. The professors may take attendance at any time during the class session. ***Students are considered to be in attendance (or absent) when the professor takes attendance.*** If you are not in your assigned class seat when attendance is taken, you will not be given credit for attending that day. If you need to leave class early, which is not recommended, please notify the professor at the beginning of class. Failure to do so may result in the loss of attendance for that day.

The professors understand there will be times when personal issues, such as medical issues and family emergencies, are unavoidable and take priority. Therefore, ***each student will be allowed three (3) absences without penalty***. Students do not need to contact the professors to explain an absence. If you are absent, it is your responsibility to obtain missed material from your peers, so establish contact with other students in the class immediately.

Since students are allowed three absences, there is no such thing as an "excused" absence. If for any reason (including health issues supported by a doctor's note) more than three absences occur during the course of the semester, the student may receive a penalty at the professor's discretion.

If a student is absent for an exam or other activity for which points are earned, no make-up will be available. Nonetheless, the professor may consider, for example, an official doctor's note (the veracity of which may be checked by a phone call to the writer of the note) as sufficient reason for a student to make up missed exams or other gradable activities when it can be accomplished in a manner consistent with the educational goals of this course.

Drops and Incomplete Grades

This course follows published university policies, which can be found at the following website, on drop dates and incomplete grades http://www.umt.edu/registrar/students/dropadd.php. After 45th instructional day, students must petition to drop the course. Please note drops are not allowed unless an extraordinary circumstance (e.g., illness) beyond the student's control prevails. Circumstances must be fully documented and acceptable to the professor. ***Low grades or their consequences are not an acceptable reason for a petition approval***.

Regarding incomplete grades, the university catalog states: "Incomplete grades are not an option to be exercised at the discretion of a student. In all cases it is given at the discretion of the instructor within the following guidelines. A mark of incomplete may be assigned students when (1) the student has been in attendance and doing passing work up to three weeks before the end of the semester, and (2) for reasons beyond the student's control and which are acceptable to the instructor, the student has been unable to complete the requirements of the course on time. ***Negligence and indifference are not acceptable reasons.***"

Behavior Expectations

Professionalism

Students are preparing to become business professionals, and professional behavior is expected at all times. Students are expected to abide by the COB Code of Professional Conduct (found online at http://www.business.umt.edu/ethics/professional-conduct-code.php). Treat class sessions like business meetings. Failure to adhere to these expectations may result in being asked to leave the classroom. In addition, students will:

- Remain in the class for the duration of class time (no in and out or leaving early)
- Bring all materials needed for class
- Refrain from using any technology, including cell phones, not required for the class conduct at that time
- Being an active listener – not talking while others, including the instructor, are talking

Personal Electronic Devices

It is considered rude, distracting, and unprofessional to use personal electronic devices (e.g., cell phones, iPads, iPods) during business meetings. Therefore, personal electronic devices are prohibited during class. Putting your device, for instance, on "vibrate" or "silent" mode is insufficient, as it is difficult to avoid the temptation to check your device. ***Prior to entering the classroom, turn off and stow all personal electronic devices. Keep your devices off at all times.***

For each offense, students will lose attendance credit for that day. Repeat offenders will also receive a one full letter grade deduction on the next exam. Students using a personal electronic device during and exam or quiz will automatically receive a score of zero and be subject to an academic misconduct review.

Email

According to University policy, faculty may only communicate with students regarding academic issues via official UM email accounts. Accordingly, students must use their UM accounts. Email from non-UM accounts will likely be flagged as spam and deleted without further response. To avoid violating the Family Educational Rights and Privacy Act, confidential information (including grades and course performance) will not be discussed via phone or email. All email communications should be professional in tone and content. A professional email includes a proper salutation, grammar, spelling, punctuation, capitalization, and signature. Please check your UM email daily so you won't miss important class and COB announcements.

Exam Conduct

Students must take exams on their regularly scheduled days unless they have an excused absence. Excused absences ONLY include (1) University-approved absences, (2) documented health emergencies, (3) civil service such as military duty and jury duty, and (4) other emergencies deemed appropriate by the instructor. In all cases, the instructor must be notified prior to the exam unless the emergency makes such notification infeasible. During the exam, you may not leave the room for any reason. Doing so results in the conclusion of that student's exam. Electronic dictionaries, cell phones, tablets, laptops, notes, smart watches, or other assistive items are not allowed.

Academic Misconduct

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. The University of Montana Student Conduct Code specifies definitions and adjudication processes for academic misconduct and states, "Students at the University of Montana are expected to practice academic honesty at all times." **IMPORTANT: It is the student's responsibility to be familiar with the Student Conduct Code, including definitions of academic misconduct**. (found online at http://www.umt.edu/vpsa/policies/student_conduct.php).

The College of Business endorses academic honesty as a pillar of integrity crucial to the academic institution. Academic honesty is an important step towards developing an ethical backbone needed in a professional career.

Failure to practice academic honesty is considered academic misconduct. Academic misconduct will be penalized to the fullest extent. Students are expected to:

- Be knowledgeable of activities that are considered academic misconduct, as defined in section V.A. of the UM Student Conduct Code,
- Practice academic honesty on all exams, quizzes, homework, in-class assignments, and all other activities that are part of the academic component of a course,
- Encourage other students to do the same.

Confusion may arise in what is and is not academic misconduct. Students should ask if they are unsure if a behavior will be viewed as academic misconduct. A good rule of thumb is that any credit-earning activity in a course should represent the true skills and ability of the person receiving the credit. A partial list of situations that are considered academic misconduct is in the COB Professional Code of Conduct (found online at http://www.business.umt.edu/ethics/professional-conduct-code.php). If at any point a student is unsure if working with another student is permissible, that student should contact the instructor before doing so.

Emergency Procedures
In the event of a campus emergency during class, please follow instructions provided by your instructor or the UM emergency alert system. Failure to do so could hamper efforts to resolve the emergency situation in a safe, timely manner.

Grievance Procedures
The formal means by which course and instructor quality are evaluated is through the written evaluation procedure at the end of the semester. The instructor and department chair receive copies of the summary evaluation metrics and all written comments sometime *after* course grading is concluded. Students with concerns or complaints during the semester should first communicate these to the instructor. This step almost always resolves the issue. If the student feels that the conflict cannot be resolved after meeting with the instructor, the student should contact the department head. If, after speaking with the department head and the instructor, the student still feels that the conflict has not been resolved, contact the Associate Dean of the College of Business.

Student Resources

Writing Center
For students who wish to improve their written communication skills, the Writing Center offers free, one-on-one tutoring to undergraduate and graduate students in all disciplines. The center provides "a comfortable environment where students can engage in supportive conversations about their writing and receive feedback on their works in progress. Our professional tutors help students at any point during a writing process and with any writing task." For additional information, please visit the Writing Center's website at http://www.umt.edu/writingcenter.

Disability Services for Students
Students with disabilities will receive reasonable modifications in this course. The student's responsibilities are to request them from me with sufficient advance notice and to be prepared to provide official verification of disability and its impact from Disability Services for Students. Please speak with me after class or during my office hours to discuss the details. For more information, visit the website for the office of Disability Services for Students (found online at http://www.umt.edu/dss/).

Program Mission Statement and Assurance of Learning

The University of Montana's College of Business enhances lives and benefits society by providing a world-class business education in a supportive, collegial environment.

We accomplish this mission by acting on our shared core values of creating significant experiences, building relationships, teaching and researching relevant topics, behaving ethically, and inspiring individuals to thrive.

As part of our assessment process and assurance-of-learning standards, the College of Business has adopted the following learning goals for our undergraduate students:

1. COB graduates will possess fundamental business knowledge.
2. COB graduates will be able to integrate business knowledge.
3. COB graduates will be effective communicators.
4. COB graduates will possess problem solving skills.
5. COB graduates will have an ethical awareness.
6. COB graduates will be proficient users of technology.
7. COB graduates will understand the global business environment in which they operate.

Course Schedule

Since the course schedule is tentative and subject to change throughout the semester, it has been posted as a separate document on Moodle. The course schedule can be located on Moodle under *Course Schedule*. Please refer to the course schedule on a weekly basis to stay abreast of upcoming course events, lecture materials, and assigned readings.

Syllabus Revision

Instructor reserves the right to modify syllabi and assignments as needed based on faculty, student, and/or environmental circumstances. If changes are made to the syllabus, amended copies will be dated and made available to the class through Moodle.

Last Revised: January 21, 2018

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Course Schedule

Note: Course schedule is tentative and subject to change. The schedule was last updated on January 21, 2018.

Week	Date	Topic	Readings	Deliverables (due at noon unless otherwise specified)
1	Jan. 22	Course Overview		
	Jan. 24	**Lecture:** The Systems Development Environment	Chapter 1	
2	Jan. 29	**Lecture:** Identifying and Selecting Systems Development Projects	Chapter 4	
	Jan. 31	**Lecture:** Initiating and Planning Systems Development Projects	Chapters 3 and 5	
3	Feb. 5	Project Introduction		
	Feb. 7	**Lecture:** Determining System Requirements	Chapter 6	Student background questionnaires due at the beginning of class
4	Feb. 12	**Lecture:** Use Case Diagrams Team Introductory Meeting		
	Feb. 14	Introductory Meeting with Client		
5	Feb. 19	**NO CLASS – Presidents Day**		Status Report and Team Charter due Mon., Feb. 20 at 9:00am
	Feb. 21	Guest Speakers: Fast Enterprises The Fast Implementation Methodology		

Week	Date	Topic	Readings	Deliverables
	Feb. 23	Client Interviews (See client interview schedule for exact times) **Meet in GBB 345-2**		Interview Guide due at client interview
6	Feb. 26	**NO CLASS – Work on Team Project**		
	Feb. 28	**Lecture:** Origins of Software	Chapter 2	
7	Mar. 5	Midterm Examination #1 **Class meets in GBB 213**		Status Report, Data Collection Plan, and System Requirements due Mon., Mar. 5 at 9:00am
	Mar. 7	**Lecture:** Feasibility Analysis		
8	Mar. 12	**Lecture:** Website Design & Usability		
	Mar. 14	**Lecture:** Designing Forms, Reports, Interfaces, and Dialogues	Chapter 10	
9	Mar. 19	Professor/Team Meetings: Teams 1-5		Status Report and Feasibility Study due Mon., Mar. 19 at 9:00am
	Mar. 21	Professor/Team Meetings: Teams 6-10		
	Mar. 23	Advanced Technology Group Visit at 216 W Main St, Missoula, MT Time TBA		
10	Mar. 26	**NO CLASS – Spring Break**		
	Mar. 28	**NO CLASS – Spring Break**		
11	Apr. 2	**NO CLASS – Work on Team Projects**		Status Report and Design Document due Mon., Apr. 2 at 9:00am
	Apr. 4	Professor/Team Meetings: Teams 6-10		

Week	Date	Topic	Readings	Deliverables
12	Apr. 9	**Lecture:** Systems Implementation		
	Apr. 11	Professor/Team Meetings: Teams 1-5		
13	Apr. 16	Professor/Team Meetings: Teams 1-5		Status Report due Mon., Apr. 16 at 9:00am
	Apr. 18	Professor/Team Meetings: Teams 6-10		
14	Apr. 23	Professor/Team Meetings: Teams 1-5		
	Apr. 25	Professor/Team Meetings: Teams 6-10		
15	Apr. 30	Team Presentations **6:00-9:00pm in GBB 122**		Status Report due Mon., Apr. 30 at 9:00am
	May 4	**NO CLASS – Team Project Deliverables Due**		Project Workbooks (2 copies) and Peer Evaluations due at 5:00pm