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### ACTG 321.01: Accounting Information Systems I (AIS)

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## **ACTG 321: Accounting Information Systems I (AIS)**

**Fall 2014-MW 11:10-12:30pm.**

**The class meets in the GBB Building, GBB 123.**

**This class is offered during the Autumn and Spring semesters only.**

**Instructor: Ronald F. Premuroso, Ph.D., CPA, CFE.**

**Office: GBB 341. Phone: 243-6464.**

**E-mail: [ronald.premuroso@umontana.edu](mailto:ronald.premuroso@umontana.edu)**

**Office Hours: See Moodle**

**Webpage: <http://www.business.umt.edu/FacultyStaff/RonPremuroso.aspx>**

**I am in my office just about every day so please stop by, anytime.**

### **Course Learning Goals**

Upon completing this course, a student will be able to:

- Describe and discuss the objectives of an accounting information system and how the accounting information system relates to other business systems;
- Describe the elements of an electronic accounting information system, including its foundation in database technology;
- Create system flowcharts documenting business processes and assess processes for internal control strengths and potential weaknesses;
- Compare and contrast business processes conducting in a manual environment with those conducted in a partially or largely automated environment;
- Evaluate the impact of specific industry practices on generic business processes;
- Identify and analyze risks associated with business processes related to financial reporting, including the risk of fraud, utilizing an acceptable framework (for example, FCPA; COSO (2013), COBIT 5, etc.);
- Evaluate the implementation issues and effectiveness of potential internal controls and other risk management techniques;
- Understand data security options (e.g., effectiveness; costs; benefits).
- Understand the major transaction cycles: revenues; expenditures; payroll and personnel; production; and how they impact the general ledger and financial reporting parts of the accounting function;
- Identify and assess promulgated frameworks and standards (for example, COSO or the various information technology governance standards) for application to an accounting information system and the various business processes it supports;
- Link the business process internal controls and risk management strategies to management's responsibilities to the owners and shareholders of the business (for example, under the Sarbanes-Oxley Act); and

- Explain relevant current trends in technology, including potential careers in accounting information systems.

I will provide you with a broad overview of accounting information systems (including related technologies, where appropriate) and basic internal control issues and practices as they relate to the accounting profession. Given the dynamic nature of technology, my focus is on developing problem solving skills, creative thinking skills, and learning tools students can apply to future technologies. Accounting professionals, especially auditors, are required to identify, evaluate, implement and/or test internal controls related to financial reporting.

**Internal controls are a key component of this course. Transaction cycles and the impact of transactions on the general ledger and the financial reporting process are additional key components of this course. Information technology impacts on internal controls and the financial reporting process are also a key component of this course.** Your ability to master these internal control concepts and transaction cycles are critical to your future success in the accounting or the IT advisory (as it relates to accounting) professions.

At the same time, you are required to participate and complete a Group project **and** a series of advanced Excel assignments on an individual basis-all of which are explained on Moodle. Whichever choice you make for the Group Project, **both the Group Project and the Advanced Excel assignments will be a good (no, great!) item to add to your professional resume.** I will discuss each of the Group Project choices in class so you can decide which project fits your particular goals and objectives in or outside the accounting profession. **Within a few weeks into the semester, you should decide which project you are going to perform during the semester and have formed a Group of students for the project.**

Your ability to communicate effectively what you learn in this course, both in writing and verbally, is also part of the Mission Statements of the School of Business Administration and the Accounting Program, which are shown at the end of this syllabus.

All accounting majors must take this course. All students seeking to obtain the AIS Certificate must also take this course. This course is also listed in a basket of courses MIS majors may take. For those of you planning to take the CPA exam, internal controls, communication, and reporting comprises about 30% of the Auditing & Attestation (AUD) section of the exam; Information technology and related communication comprises about 25% of the Business Environment & Concepts (BEC) section. **I include CPA exam-type questions on my examinations so you can get some practice tackling these types of questions.**

You will also practice using various common software programs used in both business and in accounting, including Excel, PowerPoint, Word, and Visio. All of these software programs are available in the computer lab in the GBB building on the second floor.

### Required Course Materials and Prerequisites

•**Textbook: Accounting Information Systems**, customized, soft-cover version of the Gelinas, Dull, & Wheeler textbook, Cengage, available at the UM Bookstore, including the access card (code) to SAM Advanced Excel online assignments. **Note: previous textbooks are out of date and are not useable in this course (I changed the course textbook effective the Fall 2014 semester).**

•**SAM Advanced Excel 2013 assignments-see Moodle for the details.**

•**If you decide to perform the Microsoft Dynamics Software Group/Individual Project or the AIS Group Case Study, see Moodle for the details.**

•There is no calculator requirement for this course.

•An active, University of Montana ([firstname.lastname@umontana.edu](mailto:firstname.lastname@umontana.edu)) email account, and access to the University of Montana Learning Management System (LMS) Moodle server: <https://moodle.umat.edu>

•Access to a computer, the Internet, printing capability, and Word, Excel, Visio, PowerPoint, and pdf files (for pdf files, you can download for free on the Adobe website the related software). The above software is installed on the desktops in the SOBA computer labs on the 2<sup>nd</sup> Floor of the GBB building, or you can ask the computer lab personnel for a license for about \$10 per software package to install the related software on your home desktop or laptop. If you only own an Apple desktop or laptop, software capability with Microsoft is very important; otherwise, for course homework assignments requiring the use of Microsoft software, you will need to use the SOBA computer lab to complete these assignments.

As the classroom and the GBB 2<sup>nd</sup> Floor lab computers have Office 2010 and/or 2013 installed on them, you must be able to view and use Office 2010 and/or 2013 files.

•**Prerequisites:** Junior status in the School of Business and having completed all lower business core courses. Prerequisites will be checked the first week of class. If you do not have the prerequisites or otherwise have permission to take the course, you must either drop the course or receive a grade of F. **You must be taking the Accounting Lab (ACTG 203), either at the same time you are taking this course, or have completed ACTG 203 in the past.**

### Course Activities

#### Unannounced Quizzes/Homework Assignments-15% of Your Grade

I will have several unannounced quizzes in class testing you on either the materials I covered the previous class or the materials I am scheduled to cover that class meeting or special readings I assign to you found in Moodle. I do not take attendance-missing the quizzes provides me with some indication of your level of class attendance and participation in class activities. The quizzes will be fill in the blank, multiple choice, and definition-type short answer questions. Missed quizzes count zero toward your grade. **Note: no makeups are allowed for any reasons for unannounced quizzes and no late homework assignments are accepted. The only makeups I will allow per University policy is for student athletes whose travel schedule or commitments results in a missed quiz or homework assignment, notes from a doctor for significant illnesses, or a family bereavement situation.**

**The Group Project or the Group Case Study Options-15%-see Moodle for more details**

**Individual Advanced Excel Assignments -10% of Your Grade-see Moodle for more details**

**Group Project Choice for Students Repeating This Course**

If you are retaking this course for any reason, you must change the Group Project you perform for this class to a total different project. Please see your instructor for more details and to agree in advance on which Group Project you are going to perform.

**Examinations (4 of them, worth 60% of your grade)**

Warning: my exams are legendary here in the business school. You may have taken challenging exams in the past in some courses-wait until you take my exams. For many of the examination questions, EACH answer COULD be the correct answer to the question. But the CORRECT answer is the BEST answer to the question. For those of you with the goal to take the CPA examination in the future, my exams will be excellent preparation for you for the parts of that exam that deal with AIS-related topics. Many students HATE my exams during the semester; many students write me several years later when they take the CPA exam, thanking me for getting them prepared so well to take the AIS-related parts of the CPA exam, which can be the difference between passing and failing half of the CPA exam, as AIS-related topics are covered in two of the four parts of the CPA Exam (Auditing and BEC, Business and Environmental Concepts).

**Course Policies**

**Grading:** I will assess your mastery of the course material primarily through the exams, the quizzes and homework, and the Group Software/Case Study. Course grades are determined as follows:

Exams 1, 2, and 3	40% (10, 15, 15, respectively)
Comprehensive Final	20%
Group Project	15%
Excel Individual Assignments	10%
Quizzes and Homework	15%

**Course grades are final and are not negotiable, regardless of the consequence of the grade you earn. Individual examination scores are not curved.** Basic grading standards are: 93% and above: A; 90-92.9=A-; 87-89.9% = B+; 83-86.9% = B; 80-82.9% = B-; 77-79.9% = C+; 73-76.9% = C; 70-72.9% = C-; 60-69.9% = D; below 60% = F. You must earn a C- or better in this course for this course to count towards your accounting major degree-this is a requirement established by the Board of Regents of the Montana University System. If you do not meet this requirement, you must retake the course. You can track your grade progress at all times by checking Moodle. This class is also a pre-req for ACTG 411, Auditing, therefore you must earn a C- or better in this class to take Auditing.

**The professor reserves the right to adjust a student's final grade down a letter grade in this course if you miss more than 3 of the quizzes and/or homework assignments for any reason during the semester, or if you do not actively participate in the Group Project.**

I do not discuss grades by email due to privacy and confidentiality concerns (a topic also in this class, you will see), so please do not ask; please come see me personally if you wish to discuss your grades.

**Formula for Success in This Course:** (1) come to class; (2) take good notes in class; (3) read the textbook, either before I cover it or immediately after I cover it; (4) come to my office and ask for help, anytime you need it; (5) study very hard for each one of the exams; (6) get the highest grade you can on both the Group Project and/or the Excel assignments and the class quizzes/homework.

**Course Flexibility:** The course schedule posted on Moodle is an outline for the course; it is tentative, including the test dates. Assignments may change to incorporate recent developments relevant to both the accounting profession and to AIS. It is your responsibility to attend class and be aware of the course schedule and any changes I may make to it during the semester.

**Incompletes, Drops and Grading Options:** This course must be taken for a letter grade. Per UM policy, changing of the grading option for the course to Audit is not allowed after the 15<sup>th</sup> instructional day, and I must agree to it. Also, audits are allowed only if the student does not need course credit toward their degree or CPA license. Incompletes are only given in extreme circumstances that are serious and unavoidable. The last day to drop a course is available at the Registrar's web site – note this date is too late for a refund of your fees. After this date, a petition is required (**grade = WP if you have achieved a 70% grade on course work attempted to date; WF if below 70%**). I abide by University and departmental policy and do not approve petitions to drop after the drop date unless you document **written justification for your special circumstance** as required by the University. Very limited circumstances are permitted for petitioning, and these circumstances do **not** include prior poor academic performance or its consequences. Examples that **may** merit approval are: accident or illness; family emergency; or other circumstances **beyond the student's control**. **Please note that University Policy forbids dropping a class for any reason after the last day of classes.** Please check the Registrar's web site for all important dates and policies regarding incompletes, drops, and grading options. I have summarized them below for your convenience:

**Check the Registrar's website for:** Official enrollment recording day at the University; last day to make changes to your schedule via Cyberbear (after this, your instructor must sign drops); also, last day for partial refunds.

**Check the Registrar's website for:** Last day to drop without a petition (instructor, advisor, associate dean must sign petition).

**Classroom Policies. You should consider each class meeting as a business meeting; this means (and I am very serious about this):**

- all personal electronic devices should be turned off during class;
- if you leave class, please do not return during that class meeting; and
- arrive on time and prepared for each class. Arriving late or departing early is disrespectful.
- you should expect to spend a minimum 6-10 hours each week outside of class preparing/doing homework assignments for this course. I can assure you, this class will be very challenging and time-consuming, but your learning experience in this class will be vast!

-check Moodle (under the “Course Documents” tab) for additional readings, videos, etc. for each course topic which you are also responsible to read/listen to for the related lecture session.

If you need to leave class early, let me know before class starts. Class attendance in this course is extremely important to succeed (ask any of my past classes this question yourself). This course has a relatively high failure (retake) rate as students, mistakenly, do not take my warnings seriously.

**Exams**-Exams are administered during regular class time; students are therefore required to take each exam at the announced time and date. **I do not administer either make-up exams or early exams except under warranted circumstances.** Working, being out of town, or being late in returning from out of town are not excuses for missing an exam. I retain all exam materials in my office, and you are invited to come by my office to review and discuss your exam at any time during the semester. Exams are generally multiple choice questions.

You may not use any outside materials, including language dictionaries, during an exam. You may not leave the room during an exam until you complete your exam. Cell phones, PDA's, and iPods and iPads must remain in your backpacks or purses during the exam.

**Course LMS (Moodle)**-I will make heavy use of Moodle to administer this course. You can access Moodle any Internet browser and the appropriate password at: <https://moodle.umontana.edu>. The LMS at the University uses the students' University email accounts. I will post course materials, readings, etc. on Moodle. **Please change your password at least once during the semester to ensure you will not be locked out of Moodle without notice.**

**Email**-Beginning July 1, 2007, the University has a new policy regarding student email accounts. Faculty members may only correspond with students regarding academic issues using official University email addresses. I will therefore only reply to emails using umconnect.umt.edu addresses in this course. It is the student's responsibility to ensure the functionality of his or her umconnect account (e.g., not full).

**Student Responsibilities, including Quizzes and Homework**-You have responsibilities when you enroll in this course, including: (1) show up, (2) keep up, and (3) speak up. The overall class experience is greatly enriched if you come to class both prepared and willing to participate in classroom discussions. **This means you should have read the assigned text book reading or other reading assignments, and must have done any assigned homework before coming to class. You should bring your textbook to every class meeting.** I will make announcements via email (university email addresses only), so please check your email regularly. I retain the option to give quizzes at the start or the end of class; I will pick up homework either at the start of class. I will also call you at random during class to explain the homework assigned for that particular class meeting.

**Office Hours**-I hold regularly scheduled office hours every week, and any changes are announced in advance on Moodle. I encourage you to seek my help and guidance throughout the course, whether it relates to the course materials, academics, or career counseling. Drop-in visits are welcome.

**Students with Disabilities**-Students with disabilities may request reasonable modifications by contacting me. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). “Reasonable” means the University permits no fundamental alterations of academic standards or retroactive modifications. (For more information, see <http://www.umt.edu/disability>).

**Academic Misconduct**-The accounting profession is held to the highest standards of ethical conduct. Research shows students who cheat in college are likely to cheat in their job after college. **Do not do it.** Period. Academic misconduct will result in a grade of “F” in this course. Academic misconduct includes, but is not limited, to the following:

- Disclosing exam content to other students after you have taken the exam;
- Copying any material from another student, including written assignments, spreadsheets, data files, or exam answers;
- Utilizing a previous student’s materials from this or other courses;
- Plagiarism (i.e., copying someone else’s work without making appropriate reference to the source);
- Obtaining complete or portions of pre-written papers from any source, including the Internet;
- Misconduct during an examinations; and/or
- Facilitating any type of academic dishonesty.

I will retain all exam materials; taking exam materials outside of the classroom or my office for any length of time without my permission is considered academic misconduct. **The Student Conduct Code for the University of Montana is available online at: [http://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/student_conduct.php). I reserve the right to include in your examinations in this course materials from the Student Conduct Code.**

**Career Development Activities**-I have a Career Development tab on Moodle for your convenience.

### **School of Business Administration Mission Statement and Assurance of Learning**

The University of Montana’s School of Business Administration is a collegial learning community dedicated to the teaching, exploration, and application of the knowledge and skills necessary to succeed in a competitive marketplace.

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

**Learning Goal 1:** SoBA graduates will possess fundamental business knowledge.

**Learning Goal 2:** SoBA graduates will be able to integrate business knowledge.

**Learning Goal 3:** SoBA graduates will be effective communicators.

**Learning Goal 4:** SoBA graduates will possess problem solving skills.

**Learning Goal 5:** SoBA graduates will have an ethical awareness.



**Learning Goal 6:** SoBA graduates will be proficient users of technology.

**Learning Goal 7:** SoBA graduates will understand the global business environment in which they operate.

**Undergraduate Accounting Program Mission Statement**

The undergraduate accounting program is committed to preparing students to apply accounting and business knowledge in organizations. The accounting faculty has adopted the following learning goals for our undergraduate accounting students:

**Learning Goal 1:** Accounting majors will possess fundamental accounting knowledge;

**Learning Goal 2:** Accounting majors will be effective writers;

**Learning Goal 3:** Accounting majors will critically analyze and solve problems, using technology where appropriate; and

**Learning Goal 4:** Accounting majors will understand the importance of ethics to the accounting profession and demonstrate ethical decision making.

## **ACTG 321-Accounting Information Systems I (AIS)-Tentative Course Schedule**

RQ (Review Questions); DQ (Discussion Questions); SP (Short Problems); P (Problems) are recommended in your custom textbook that I will also try to cover in class. Solutions to them are posted in Moodle after we cover the related Chapter in class.

### **1. Understanding, Acquiring, Implementing, and Documenting Accounting Information Systems**

- Week 1**      **August 25-Course Introduction; Introduction to AIS: DQ 1-2, 3, 9, 11, 12.**
- August 27-Introduction to AIS (continued). SP1-1; P1-4; P1-7 (no paper required); P1-9.**
- Enterprise Systems**
- Week 2**      **September 1-Labor Day-No Class**
- September 3-Enterprise Systems (continued). RQ2-11 to 15; DQ2-7; P2-1; P2-4; P2-7.**
- Week 3**      **September 8-Electronic Business (E-Business) Systems**
- September 10-E-Business Systems (continued). SP3-1; P3-8; P3-9**
- Week 4**      **September 15-Documenting Information Systems. Meet in GBB213 lab-2 (two)**
- 40-minute shifts (Last name: A-M: 11:10-11:50; N-Z: 11:50-12:30).**
- Learn how to use MS Visio software for System Flowcharting. Note: my emphasis in this Chapter is on System Flowcharting, not Data Flow Diagrams (for DFDs, symbols and purpose only). **Note: FC Lecture posted in Course Documents & Handouts in Moodle.**
- September 17-Documenting IS (continued). SP4-4; SP4-5. Classroom practice critiquing example system flowcharts (see examples posted in Course Documents in Moodle).**
- Week 5**      **September 22-FC HW Assignment 1 Due In Class: P4-3.**
- Acquiring and Implementing AIS (this Chapter is posted in Moodle). DQ17-1, 4, 14, 17, 18.**
- September 24-FC HW Assignment 2 is Due: P4-7.**
- Acquiring and Implementing AIS (continued). P17-7.**
- Week 6**      **September 29-Exam 1-Above 5 Chapters**

**2. Controlling Information Systems: Internal Controls, COSO (2013), COBIT 5, Enterprise Risk Management (ERM), Pervasive Controls, Business Process and Application Controls, Order Entry/Sales Processes, and Billing and A/R through the Cash Receipts Process**

October 1-Controlling Information Systems. New COSO Standards Issued May 2013

(posted in Moodle). Internal Controls: Summary of the COSO Framework: 5-minute student video presentation summarizing the COSO Framework (with a few humorous examples from the workplace): <http://www.youtube.com/watch?v=II6O3RV7Ltk&feature=related>

Week 7      October 6-Controlling Information Systems (continued). SP7-1, 2, 3; P 7-1, 2, 3, 4, 5, 6

Listen to video (1-hour long): [www.pbs.org](http://www.pbs.org) Frontline: The Madoff Affair. Whose fault was this???

October 8-Controlling IS: Pervasive Controls.

Week 8      October 13-Controlling IS: Business Process and Application Controls

October 15-Controlling IS: Business Process and Application Controls (continued).

Week 9      October 20-The Order Entry/Sales Process

October 22-The Order Entry/Sales Process (continued)

Week 10     October 27-The Billing/A/R/Cash Receipts Process

October 29- The Billing/A/R/Cash Receipts Process

Week 11     November 3-Exam 2-Last 5 Chapters

**3. More Transaction Cycles and Business Processes: Purchasing; Accounts Payable and Cash Disbursements; HR and Payroll; Production; and finally the General Ledger and Business Reporting Process**

November 5-Purchasing Process

Week 12     November 10-Purchasing Process (Continued)

November 12-Accounts Payable/Cash Disbursement Process

Week 13     November 17-Accounts Payable/Cash Disbursement Process (Continued)

November 19-Human Resource Management and Payroll Processes

Week 14     November 24-Integrated Production Processes

November 26-Student Travel Day-No Class

Week 15     December 1-The General Ledger and Business Reporting Process

Listen to David Myers, former Controller of WorldCom, video about how he committed the accounting fraud at WorldCom in a speech he made at Baylor-copy and paste the following link into your web browser: <http://www.baylor.tv.com/video.php?id=001496> Video is an hour long.

Under course docs, read **David Myers, WorldCom Controller Case Study: WMC Journal Entries Case Study; Fundamental Information about XBRL.**

**December 3-Exam 3-Last 5 Chapters.**

**Week 16      Comprehensive Final Examination: TBA on Moodle Course Homepage**