

**System Development and Implementation - IS 450 & IS 580**, Spring 2007, BC 115; Day/Time: MWF 2:30-3:20Instructor: **Jennifer Kreie**Office: **Guthrie 206**E-mail: [jkreie@nmsu.edu](mailto:jkreie@nmsu.edu)Office Phone: **646-2990**My web page: <http://web.nmsu.edu/~jkreie>

Office Hours: Monday &amp; Wednesday 9:00-10:00 a.m.

WebCT: <http://salsa.nmsu.edu/>

Tuesday 1:30-3:30 p.m.

Classes: MWF 10:30-11:20, IS 350 (540), BC 106

MWF 11:30-12:20, IS 475 (595), BC 115

MWF 2:30-3:20, IS 450 (580), BC 115

**Text** - We will use the textbook from IS 350 as a reference.

**Course Description** - This course teaches the application of software engineering techniques in the development of information systems. This course includes the use of project management techniques and the application of formal analysis, design, and implementation techniques to produce an information system. This course will provide hands-on experience for teams as they work through the phases of system development and system implementation. Team members will use widely used modeling tools for project planning, analysis and design. A CASE tool will also be used during part of the semester for hands-on practice with automated systems development tools. **Prerequisite: IS 350 with a grade of C or better.**

**Course Objectives** - The student who completes this course should know:

1. The traditional and RAD (rapid application development) systems development process.
2. Project management.
3. Data migration issues.
4. End-user documentation.
5. System testing.
6. Database archiving.
7. Automated tools (CASE) for systems development.
8. Logical and physical database design.
9. System implementation and maintenance.

The student will also have participated in writing project reports and creating a project web page to facilitate project management.

**Examinations** - There will be two exams. Each exam will be worth 13-15% of the overall grade. The exams will cover material from the textbook used in IS 350, software used in class, and lectures. Exams will be a combination of multiple choice, short answer, and hands-on problem-solving.

If you miss an exam due to illness, work, or a university-sponsored activity, you must provide proper notification to the instructor as soon as possible. If no valid excuse is provided the student will receive a score of zero for the missed exam.

**Individual Assignments** - There will be some individual assignments given throughout the semester to enable each student to practice the techniques and software being taught. Besides Oracle Designer, the individual assignments will make up approximately 15% of the overall grade. Late exercises will be accepted but there will be a 50% penalty for each day. Assignments too late to be earned points must still be submitted to complete this course. Note: An exercise due at the beginning of class will have a 5% penalty if it is turned in any time later that same day.

There will be an individual Oracle Designer project. After completing the Designer tutorials, each student will use Designer to design and implement a portion of the group project he/she participated in. The individual tutorial and project will be about 20% of the overall grade.

*All individual assignments must be completed. A student will not receive a passing final grade until all assignments have been submitted, even if the late penalty reduces the points possible to zero. All late submissions must be turned in by noon on Friday before the week of final exams.*

**Group Project** - The primary focus of this course is to practice all phases of the system development process. Because most system development is done in project teams you will work with a group to complete a project during the semester. It is important that the team consist of people with a range of skills, not just a group of friends that want to hang out together. Some of the skills required for the team to be successful are: project planning and management, negotiation, report and technical writing, data modeling and database design, process modeling, Web page design and management, Visual Basic programming in Access (VBA). Teams will be assigned by the instructor based on anonymous self-ratings made by students for their systems development skills--programming, project management, etc. Team assignments are made the first day of class.

**Team Roles:** At the beginning of the semester the teams must assign roles and responsibilities to each team member. Depending on the size of your team, team members may serve in more than one role. The team roles are:

- project leader,
- lead web master (assistant is optional),
- lead programmer (assistant is optional),
- lead database designer (assistant is optional),
- lead documenter (assistant is optional), and
- lead interface designer (assistant is optional).

The lead person will have the primary responsibility for a particular task. If the job is something you're particularly interested in, such as VB programming, but you feel you lack enough experience to take the lead then ask to be the assistant.

There will be at least one cross-team meeting for functional areas (roles) during the project. For example, the lead programmers from all the teams meet to discuss problems and solutions they've encountered. This is similar to what you'll do in your job--tap into professional groups and co-workers that have some expertise and also share what you know with others.

**Project Web Page:** Each group will maintain a project web page to help manage the project by providing links to reports, documentation, prototypes, etc. *(The project web page will also provide students with a good demonstration of their project work that can be used during interviews. Many students say their project web page was very useful when talking to employers. I strongly recommend you keep a copy of your team's complete project web page on a CD once the semester is over. At the end of the semester I will make a copy for anyone who asks me to.)*

**Project Evaluation:** The group project will be approximately 40% of the overall course grade (the total points includes the peer evaluation score described below). The group project will be implemented in MS Access unless a group gets permission from the instructor to use something else. Producing deliverables within deadlines during the project will be part of the overall project grade. In other words, the final version of the project application is not the only thing that's graded. It's important to do well and meet deadlines throughout the project.

**Peer Evaluation:** Each student will be evaluated by his/her teammates and this will account for 30% of the student's project grade. There is a 10-point penalty if for anyone who does not submit a peer evaluation by the deadline given in class.

**Team Evaluation:** Each team will create a video at the end of their group project that demonstrates the key features of the application they created.

**Firing a Team Member:** It will be possible for a team to "fire" a team member for lack of participation or if a personality conflict cannot be resolved. A formal process must be followed:

- a. Notify the instructor. One member of the team must notify the instructor in writing, giving a clear description of the problem and any steps that have been taken to try correct the problem.
- b. Call a meeting. This will allow all the team members and the instructor to openly discuss the situation.
- c. Document in writing the outcome of the meeting.

If someone leaves a group while at least half the weeks for the project remain, that person may try to find another group to join (all members of the receiving team must agree) or he/she will complete the project alone. Past the halfway point for team projects, a person cannot join another group. If someone completes the project alone, that person can use all the team work

and documents up to the point that person leaves the team.

**Attendance Policy** - Attendance is required while the group project is going on. Even when time is allocated for project work students must show up to work with their team. If a student must be absent due to illness, work, or a university-sponsored activity, proper notification must be given to the instructor. Otherwise, each absence will cost the student 5 points.

If a class is missed, it is the student's responsibility to obtain notes from a student who attended class and to obtain any assignments from the instructor or another students.

**Class Procedures** - The teaching method for this course will include lecture/discussion, in-class exercises, and individual assignments and a group project. All individual assignments are to be done independently.

**Online Procedures** - Most of the course material will be available through the WebCT site for this class. Check the Handouts section, the Bulletin Board section, or the Oracle Designer section.

There are topics areas in the Bulletin Board (BB) section for the major topics of this course. If you have a question about an assignment, please post the question in the BB section where everyone can benefit from the information. However, don't use the BB sections for personal communications unless it's your team's private BB section. If you send a question about an assignment through WebCT email, I may ask you to post in the BB section before I respond. Again, everyone should benefit from questions and answers about an assignment.

Please note: If you have a question about an exam or assignment score because the score is missing in WebCT, please feel free to email me about the missing score. If you want to know why you got a particular score, i.e., what did you miss and why, please come see me in my office. I will not respond to emails that ask, "Why did I miss 5 points?" or "What did I do wrong on problem 6?" It takes too much time to review an exam or assignment and type out a lengthy explanation via email. I want us to review the score in question together. Often it is clear to the student what the error is when we review it and sometimes the student is able to explain something about his/her answer which I believe justifies additional credit.

**Students with Disabilities** - If you have, or believe you have, a disability and would benefit from accommodations, you may wish to self-identify. You can do so by providing documentation to the Services for Students with Disabilities (SSD) Office located at Garcia Annex (Phone: Voice 646-6840, TTY 646-1918). If you are already registered with the SDD Office and need accommodations please provide your Accommodation Memo from the SSD within the first two weeks of class.

If you have a condition that may affect your ability to exit safely from the premises in an emergency or that may cause an emergency during class, you are encouraged to discuss this in confidence with the instructor and/or the Coordinator for SSD. Call 646-3333 with any questions about the Americans with Disabilities Act (ADA) and/or Section of the Rehabilitation Act of 1973. All medical information will be held in strict confidence.

**Scholastic Dishonesty** - Scholastic dishonesty will not be tolerated. The penalty for dishonest behavior can range from receiving a zero for an assignment or exam to censure from the University.

**Point Distribution and Grades** - The points possible for this course will be *approximately* as follows:

	Points	Estimated percentage of overall grade
Exam 1	100	13%
Exam 2 - Designer	100	13%
Assignments	120	15%
Designer tutorial	75	10%
Individual Designer assignment	75	10%
Team Project	<u>300</u>	40%

**Total Points****770**

*Note: All individual assignments must be completed. A student will not receive a passing final grade until all assignments have been submitted, even if the late penalty reduces the points possible for an assignment to zero.*

Grades will assigned as follows:

90% through 100%	A
80% through 89%	B
70% through 79%	C
60% through 69%	D
Below 60%	F