

## **SYLLABUS**

### **INFORMATION SYSTEMS DESIGN & MANAGEMENT (ISDM) 1 (ROP)**

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#### **Course Description:**

ITA Year 2-3 Information Systems Design and Management (ISDM) 1 and 2 provides an opportunity for students to explore concepts and theories essential to the modern computer, computer systems, computer networks, and computer information systems. This course will also introduce concepts of Information Technology Platforms including: Computer Operating Systems, Computer Hardware, Information Systems Internetworking, Internet Technology, Network Servers, Routers, Switches, and Programming. Students will learn how to use to desktop function of Windows, and how to customize the options for individual needs. Students will use their knowledge of engineering, physics, and mathematical concepts that are the foundation to computing; engage in research, writing, problem solving, and projects; and perform lab activities that demonstrate an understanding of fundamental technology and information systems principles. College majors and careers are also explored. Students who successfully complete this course will have mastered the theories and concepts associated with College and Career Readiness in the framework information systems, models of network communication, and programming for information systems.

#### **Contra Costa College**

Students passing ISDM1 with a B or better will receive credit by examination for the course Windows Fundamentals CIS 190 offered through Contra Costa College (CCC). Students will receive 1.5 units of college for this course. The regular high school credit will apply to those students that do not pass at the B or above level, or that do not submit the required registration with CCC and the CATEMA website.

#### **Text/Materials:**

Various Web/ Text/ Videos are used in this course.

A+ Guide to Managing & Maintaining Your PC (with 2 terms (12 months) Printed Access Card), 8th Edition

#### **Teaching Methods:**

1. Lectures: Important material from the text and outside sources will be covered in class. Students should plan to take careful notes as not all material can be found in the texts or readings. Discussion is encouraged as is student-procured outside material relevant to topics being covered.
2. Projects / Assignments: End of section, hands-on and internet activities will be assigned weekly using Edmodo and in class.
3. Exams: Major exams will be given each quarter. The exams will be open book/notes and will test assigned readings and material discussed in class.
4. Case Studies: This course is built in part around Information Systems Design and Management Case Studies/Problem-Based Learning scenarios and most units include one or more case studies/scenarios
5. Integrated Projects are assigned with other ITA
6. Participation: Student participation will be graded by the level of class participation and attendance.

**Grading:** Total assigned points will vary depending on assignment. Total points will be weighted and computed as follows:

Projects 20%	Technical Applications 15%	Literacy 10%	College and Career Development 10%
Participation 25%	Keyboarding 10%	Final Exam 5%	
Each Category includes up to 20 % Exams / Quizzes			

**Course Policies:**

Missed Classes: The student is responsible for obtaining material distributed on class days when he/she was absent. This can be done through contacting a classmate who was present or by contacting the instructor during his office hours or tutorial times.

Assignments: All assignments are due before district grades are collected. I will make an effort to re-grade any assignment so students have the opportunity to prove mastery of the course content and depth of knowledge. For this class, it is permissible to assist classmates in general discussions of computing techniques. General advice and interaction are encouraged. Each person, however, must develop his or her own solutions to the assigned projects, assignments, and tasks.

Need for Assistance: If you have any condition, such as an illness, family emergency, physical or learning disability, which will make it difficult for you to carry out the work as I have outlined it, or which will require academic accommodations, please notify me as soon as possible.

Internet Support: Check the class Edmodo Web Site for additional information about course content, or to post a question about this course. Student and Parent Codes for Edmodo can be received from the instructor.

Posting of Grades: Grades will be posted in Power School.

**Assignment Descriptions:**

- **Review Assignments:** Review Assignments provide students with additional practice of the skills they learned in the tutorial using the same tutorial case, with which they are already familiar.
- **Projects/ Case Problems:** The Case Problems provide further hands-on assessment of the skills and topics presented in the tutorial, but with new case scenarios. There are four types of Project / Case Problems:
- **Internet Assignments:** Internet Assignments are additional exercises that students access via the Edmodo Web site. These assignments integrate the skills the students learned in the tutorial with research on the Web.
- **ProSkills Exercises:** ProSkills exercises integrate the technology skills students learn with one or more of the following soft skills: decision-making, problem-solving, teamwork, verbal communication, and written communication. The goal of these exercises is to enhance students’ understanding of the soft skills and how to apply them appropriately in real-world, professional situations that also involve software application skills. ProSkills exercises are offered at various points throughout a course, encompassing the concepts and skills presented in a standalone tutorial or a group of related tutorials.

**Course Topic Outline**

ISDM 1		
Topic	Approximate Time Frame	Deliverables
Introduction to Course, Restorative Practices and Team Building	Integrated Quarterly	Participation
Careers: Information System and Systems Management	1 week	Group Project/ Career Cruising /reflection Graduate Profile- Service Learning
Essential Computer Concepts (hardware and software)	1 Week	Tests and Quizzes –Ordering a computer- Proskills
Computer design, History and Software	4 weeks	History of Computers: Student-Research and

Concepts Hardware		Presentations, Teardown/Build/ Teardown/Build Electronics Labs, Lab-Converting values – binary, decimal, and hexadecimal
Installing Windows Client -Servers	2 weeks	Install Windows
Make-Up Assignments Days for Q1 and Exams End Quarter		Exams
Excel-Financial Literacy	1 week	Exam on excel- Group Projects
SCRATCH Programming	1 weeks	Various Programs-Group Projects
Robotics (Finch)	2 weeks	Various Programs-Group Projects
Hour of Code		Hour of Code
RJ Return / Team Building		Participation
<b>Semester Exams</b>		<b>Semester Exams</b>
Information Internetworking	4 weeks	Test and Quizzes-Group Projects Lab-Overcoming Electro-magnetic resistance in Ethernet Cables
<ul style="list-style-type: none"> <li>OSI/Intro 1</li> </ul>		Test and Quizzes-Group Projects Lab-OSI Model Web Page Design
<ul style="list-style-type: none"> <li>Routing /Packet Switching</li> </ul>		Test and Quizzes-Group Projects
<ul style="list-style-type: none"> <li>Security</li> </ul>		WEP Cracking Project Lab-Writing Security Policies:
JA Job and Career Workshops, Mock Interviews: Mock Interviews with Information Systems Professionals	2 weeks	Careers in Information Systems; Building your College and Career Portfolio
Design Concepts in Information Systems	1 week	Test and Quizzes-Group Projects
Management Concepts in Information Systems	1 week	Test and Quizzes-Group Projects
Using Information and Information Systems Ethically	1 week	Test and Quizzes-Group Projects
RUBY	2-3 weeks	2 complete Programs and Exam
Review learning objectives for the year		
What did I learn this year?	1 week	Portfolio - Review and PowerPoint Presentation
Putting it all together Project Makeup Days		Final project
Project Judging Open House		Final Project Defense
Review for finals		Pretest
<b>Final Exams</b>		