GRANDE PRAIRIE REGIONAL COLLEGE

COURSE OUTLINE - WINTER 1999

COMPUTER SYSTEMS TECHNOLOGY 3510

Programming RAD Tools and 4GLs

INSTRUCTOR

Stephen Rochefort

OFFICE AND PHONE

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Office Hours: TBD

Office hours may also be arranged by individual appointment with the instructor.

PREREQUISITE

CS 1150 Elementary Data Structures
CT 3610 – Systems Analysis and Design

COURSE DESCRIPTION

This course is an advanced course in programming information systems. Languages and tools popular in business will be used, including fourth generation languages, screen and report designers and CASE tools.

COURSE MATERIALS

Required Text:

McConnell, Steve, *Rapid Development: Taming Wild Software Schedules*, Microsoft Press, 1996.

Recommended Text:

McConnell, Steve, *Code Complete*, Microsoft Press, 1995.

Gamma, Erich et al. *Design Patterns. Elements of Reusable Object-Oriented Software*. Addison Wesley, 1995.

Materials:

Several 3½" floppy disks are required for saving your work.

Other stationary as required.

DATES TO REMEMBER

18 January 1998	Last day to Drop Registration for winter courses.
22-26 February 1998	Winter break.
12 March 1998	Last day to apply for Withdrawal With Permission for winter courses.
16 April 1998	Last day of scheduled classes.
20-23, 26-28 April 1998	Winter Semester Exam Period. The final exam may be scheduled *at any time* during this period. The student should not plan to be absent during this period until his/her final exams have been completed.

EVALUATION PROFILE AND GRADING

Term Project:	50%
Class Quizzes (3):	30%
Term Paper:	20%

Note:

- The quizzes will be given at the instructor's discretion.

The final percentage achieved by the student will be converted to GPRC's nine point scale as follows:

9	90 - 100	4	50 - 56
8	80 - 89	3	45 - 49
7	72 - 79	2	26 - 44
6	65 - 71	1	0 - 25
5	57 - 64		

COURSE CONTENT

Three hours per week will be dedicated to a classroom presentation of class topics. The lab component of the course shall be used to address some of the best practices (Ch. 18-43) and as a consulting period to address issues about the class project, class material, etc.

Week	Theory Topics	Lab Topic	Phases Due Dates
1	Introduction to course. Ch. 1: Welcome to Rapid Development Ch. 2: Rapid Development Strategy		
2	Ch. 3: Classic Mistakes Ch. 4: S/W Development Fundamentals	Ch: 31: Rapid Development Languages Ch. 33: Reuse	
3	Ch. 23: Inspections Ch. 5: Risk Management		
4	Ch. 41: Top-10 Risks List Ch. 6: Core Issues in Rapid Development		Phase 1
5	Ch. 7: Life Cycle Planning	Ch. 18: Daily Build and Smoke Test Ch. 19: Designing for Change	
6	Ch. 21: Evolutionary Prototyping Ch. 35: Spiral LifeCycle Model Ch. 36: Staged Delivery Ch. 20: Evolutionary Delivery	Ch. 24: Joint Application Development Ch. 38: Throwaway Prototyping	
7	Ch. 20: Evolutionary Delivery Ch. 25: Life Cycle Model Selection Ch. 8: Estimation	Ch. 26: Measurement	
8	**Reading Week**		
9	Ch. 9: Scheduling Ch. 29: Principled Negotiation Ch. 10: Customer-Oriented Development	Ch. 27: Miniature Milestones Ch. 39: Timebox Development Ch. 42: User Interface Prototyping	Phase 2
10	Ch. 11: Motivation Ch. 22: Goal Setting	Ch. 30: Productivity Environments Ch. 28: Outsourcing	
11	Ch. 12: Team Work Ch. 13: Team Structure		
12	Ch. 13: Team Structure Ch. 14: Feature-Set Control Ch. 32: Requirements Scrubbing Ch. 17: Change Board	Ch. 34: Signing Up Ch. 43: Voluntary Overtime	
13	Ch. 15: Productivity Tools Ch. 40: Tools Group Ch. 16: Project Recovery	Ch. 37: Theory-W Management	

14	Ch. 16: Project Recovery Best Practices Project Work/Wrapup		Phase 3
15	Best Practices Project Work/Wrapup Class Presentations		Phase 4 Phase 5

The readings from the McConnell text are required and are examinable material. Since the class lectures will focus around open discussions, it is important that the student read the indicated chapters before the material is presented in class.

The exact course content, order of presentation and schedule described above are subject to adjustment at the instructor's discretion.