Appendix: Course Delivery Report

SFTW 300
Software Psychology
Fall 2006

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In this report …

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Please Turn Over!

INTRODUCTION

The fall-2006 design of this course provides the capstone project experience in software requirements management, including the prototyping of user interfaces, based on the state-of-the-practice principles of human-computer interaction. A student must have some programming experience in one or two programming languages, such as C++ and Java, to initiate the learning of graphical user interface (GUI) programming or prototyping work. Typically, this pre-requisite is fulfilled after taking the sophomore course of SFTW241 Programming Language Architecture (I).

The focus of this course is on the contextual design of interactive systems through team-based project development, written work, oral presentation, and classroom scenarios. The context of student coursework involves: problem formulation, user requirements study, system definition, usability analysis, prototyping, and evaluation of work produced. The purpose of the course is to ensure that a student participates in those phases of system development, including specific GUI and Web interface design. The course brings forth the real-world technique of interacting with the client from the software developer's perspectives, using the principles of user-centered design.

The course is project-driven and team-oriented. This means that students work as team participants collaborating with their respective team members. Participants are to have ample opportunity to learn and apply project management techniques and skills throughout the course. Students are provided with a semester problem statement that includes a set of deliverables that they are expected to turn in or present throughout the semester. As an instructor, I am responsible for providing the necessary skill-sets, and offering inspiration and motivation. But, it is the student's responsibility to be a self-starter and be willing to work effectively within a team environment. This is a junior-level class, and students are expected to perform and behave in a professional manner. Student's grade should depend on such an attitude since a portion of the grade is associated with both individual effort and team performance. An evaluation is also required from each student for each individual on the team at the end of each project milestone. In other words, each team member evaluates each person's performance; thereby, everyone must pull his or her own weight.

COURSE CHRONOLOGY

September-2006

    PBL teams formation – an even number of teams to facilitate client-developer pairing;

    Client PBL teams each have about three weeks to study a system of interest;

Milestone #1: Each client team is to present its idea on system of interest;

Evaluation done for each PBL client team by the instructor;

Internal evaluation performed within each client team.

October-2006

Developer teams paired with their respective client teams;

No two teams become the client and developer of each other;

Client's requirements gathered for developer's elaboration;

Milestone #2: Developer's presentation of systems to be developed, after requirements workshop.

Evaluation done for each PBL developer team by the instructor

Internal evaluation performed by each PBL developer team

November-2006

Ongoing client-developer's joint application development for clarification with skeletal prototypes;

Memorandum developed to accommodate changes to be incorporated and not yet completed;

Milestone #3: Developer's presentation of system prototypes for client's perusal;

Evaluation done for each PBL developer team by instructor after the review session;

Internal evaluation performed by each PBL developer team.

December-2006

Client-developer meeting to prepare for system rollout (final prototype);

Negotiation leading to agreement on project closure;

Milestone #4: Developer 's final presentation of system to be delivered with client's acceptance;

Evaluation done for each PBL developer team by instructor;

Internal evaluation performed by each PBL developer team.

Taking into account the semester constraints, the following cut-off dates marked the four milestones of the SFTW300 course in this past fall:

September 20 – October 18, 2006 <Research Findings>
Milestone #1 Presentation on October (9, 10, 11, 12, 13, 16, 17, 18), 2006; afternoon from 1:00 – 2:00 p.m. at N401

October 19 – November 29, 2006 <Analysis Results>
Milestone #2 Presentation on November (15, 16, 22, 23, 24, 27, 28, 29), 2006; afternoon from 1:00 – 2:00 p.m. at L217-4

November 30 – December 31, 2006 <Reporting on Design and First Prototype>
Milestone #3 Presentation on December (30, 31), 2006; six sessions on Dec-30 from 9:30 – 5:15 p.m. with 45 minutes break for lunch, and two sessions on Dec-31 from 10:45 a.m. – 1:00 p.m. at Library Orientation Room (I).

January 1–19, 2007 <Reporting on Evaluation and Second Prototype>
Milestone #4 Presentation on January (18, 19), 2007; four sessions on each date, from 9:45 a.m. – 4:45 p.m. with two and half hours break for lunch at Library L217-4.

There were also three specific discussion/workshop sessions respectively devoted to:

October 31 – November 10, 2006
Milestone #2: *Requirements Workshop* initiated by developer team for client team on Oct-31, Nov (1, 3, 6, 7, 8, 9, 10), from 6:00 – 8:00 p.m. at Library L217-4; One date per client-developer pair.

December 1-13, 2006
Milestone #3: *Joint Application Development* sessions initiated by developer team for client team on Dec (1, 4, 5, 6, 7, 11, 12, 13), from 6:00 – 8:00 at Library L217-4; One date per client-developer pair.

December 18-21, 2006
Milestone #3: *Review (Project, Status, Peer)* sessions initiated by each developer team for instructor; each date with morning two sessions and afternoon two sessions, for each of the eight PBL teams, from 11:00 – 01:00 p.m. and 04:00 – 06:00 p.m.

To keep students informed of their progress in project-based learning, I have also provided three evaluation sessions, one after each of the first three milestone presentations:

Milestone #1 Evaluation Session: October (19, 20, 23, 24, 25, 26, 27, 31), 2006, from 1:00 – 2:00 p.m. at N401; one team per date.

Milestone #2 Evaluation Session: November (20, 21, 22, 23, 24, 27, 28, 30), 2006, from 6:00 p.m. – 7:30 p.m. at Library L217-4; one team per date.

Milestone #3 Evaluation Session: January (3, 4, 5, 8, 9, 10, 11, 12), 2007, from 6:00 p.m. – 7:30 p.m. at Library L217-4; one team per date.

COURSE OBJECTIVES

Software Psychology, according to our Faculty (founded in 1989) records, derived its name from the domain of study of human behavior in software engineering. The first suggested textbook in the course back in 1989, was found to be Ben Shneiderman's 1980 edition of Software Psychology: Human Factors in Computer and Information Systems. Since 1993, an

ongoing tailoring process is put in place by the author (Vat K.H.) to deliver an appropriate curriculum, which is composed of a suitable mix of such elements as human factors, user expectations, human-computer interfaces construction, cognitive psychology, and some latest development on user-centered and/or performance-centered design in interactive system development. Yet, the original course title has been retained because any change in course name involves some lengthy bureaucratic approval process in the local or now university Authorities. Yet, it is understood that if we intend our students to have better exposure to this field, more properly called human-computer interaction (HCI), as it is presently known today, we need more than a continually updated curriculum. We also need an appropriate pedagogy, whose mission is to facilitate students' active learning. And I have chosen the Problem-Based Learning (PBL) approach since 1998, and revise it continually in the direction of project-based learning since 2001. It has been reported that PBL helps develop in students the following characteristics of quality performance:

- high level communications, technological literacy, and informational abilities that enable individuals to gain and apply new knowledge and skills as needed.
- the ability to arrive at informed judgments; namely, to effectively define problems, gather and evaluate information related to those problems, and develop solutions.
- a range of attitudes and dispositions including: flexibility and adaptability; ease with diversity; motivation and persistence; creativity and resourcefulness; ability to work with others in team settings.

Throughout the execution of the course, I as the instructor must empower the student in the following areas of learning:

- to become HCI-literate by developing fundamental understanding of HCI in relation to human factors, usability engineering, cognitive psychology, and computer science.
- to encourage students to formulate and express their views on user interface design of interactive systems, through project development, written work, oral presentations and classroom discussions.
- to raise students' awareness of the HCI impact on computer industry, and the wide-spread focus of HCI from human factors, to usability engineering, to user-centered design, in constructing systems that support human activity.

Yet, students must involve themselves in the following iterative stages of activities throughout the semester's several milestones:

Analysis Throughout this stage, students organize their ideas and prior knowledge related to the problem, and start defining its requirements. This helps students devise a specific

statement of the problem. Meanwhile, they are encouraged to pose learning issues, defining what they know and what they do not know. This helps them assign responsibilities for research, eliciting their existing knowledge as a crucial step in learning new information.

Research Throughout this stage, students collect necessary information on specific learning issues raised by the group. They may conduct library searches, seek sources on the Internet, and/or interview knowledgeable personnel. Students teach themselves as they research their learning issues. It is intended that when they come to realize the complexity and texture of the problem, they may see that information is meant to manage problems effectively.

Reporting At this stage, students report their findings to the group. Individual students become "experts" and teach one another. Subsequently, their discussion may generate a possible solution, or new learning issues for the group to explore. Final solutions are reported to the class as a whole, and to the teacher. The teacher's feedback addresses if the original learning issues were resolved and if the students' grasp of the basic principles, information, and relationships is sufficiently deep and accurate.

COURSE ASSESSMENT

Individual Assignments	10%
Pair-Based Assignments	10%
Project Work	35%
Mid-Term Examination	15%
Final Examination	30%

COURSE MATERIALS

The following texts and references are made available in the Library under Reserved Materials of SFTW300 throughout the semester, for student reading assignment:

Selected textbooks

1. Understanding Your Users: A Practical Guide to User Requirements – Methods, Tools & Techniques
    Catherine Courage & Kathy Baxter

    Morgan Kaufmann 2005 (ISBN 1-55860-935-0)

2. User-Centered Website Development: A Human-Computer Interaction Approach

Daniel D. McCracken & Rosalee J. Wolfe

Prentice Hall 2004 (ISBN 0-13-041161-2).

Suggested References

1. User Interface Design: A Software Engineering Perspective
   Soren Lauesen
   Addison Wesley 2005 (ISBN 0-321-18143-3)

2. Managing Software Requirements: A Use Case Approach
   Second Edition
   Dean Leffingwell & Don Widrig
   Addison Wesley 2003 (ISBN 0-321-12247-X)

3. Readings in Human-Computer Interaction: Toward the Year 2000.
   Ronald M. Baecker, Jonathan Grudin, William A.S. Buxton & Saul Greenberg
   Morgan Kaufmann 1995 (ISBN 1-55860-246-1)

4. Use Case Modeling
   Kurt Bittner & Ian Spence
   Addison Wesley 2003 (ISBN 0-201-70913-9)

5. Requirement by Collaboration: Workshops for Defining Needs
   Ellen Gottesdiener
   Addison Wesley 2002 (ISBN 0-201-78606-0)

6. Human-Computer Interaction in the New Millennium
   John M. Carroll
   Addison Wesley 2002 (ISBN 0-201-70447-1)

7. Object-Oriented Software Engineering Using UML, Patterns, and Java, 2nd edition
   Bernd Bruegge & Allen H. Dutoit
   Prentice Hall 2004 (ISBN 0-13-191179-1)

8. Software Development for Small Teams: A RUP-Centric Approach
   Gary Pollice, Liz Augustine, Chris Lowe, and Jas Madhur
   Addison Wesley 2004 (ISBN 0-321-19950-2

COURSE SOFTWARE

The following softwares, acquired either from open-source channels, or from free or purchased academic license, have been made available to students in T103, the ICTO-managed laboratory, to practice and adopt in their project development:

1. Eclipse SDK 3.2.1 for Windows XP
2. Serlio CASE COMPLETE for writing use-cases
3. JDK1.5 SWING with visual Java editor embedded in Eclipse to prototype GUI's
4. Macromedia Dreamweaver 8 and Flash 8
5. Microsoft Office and Project (optionally suggested)

COURSE TUTORIALS

Throughout the semester, starting from Sep-29-2006, I have delivered ten SWING-based tutorials in class to aid students' incremental understanding of GUI-based programming based on Java using the Eclipse IDE (integrated development environment). Details are provided as follows:

Tutorial #1: Swing Fundamentals, on Week#4 (Sep-29-2006)

Tutorial #2: Labels, Buttons, and Borders, on Week#5 (Oct-6-2006)

Tutorial #3: Scroll Bars, Sliders, and Progress Bars, on Week#6 (Oct-11-2006)

Tutorial#4: Managing Components with Panels, Panes, and Tooltips, on Week#7 (Oct-18-2006)

Tutorial #5: Lists, on Week#8 (Oct-25-2006)

Tutorial #6: Text Components, on Week#9 (Nov-1-2006)

Tutorial #7: Working with Menus, on Week#10 (Nov-8-2006)

Tutorial #8: Tables and Trees, on Week#11 (Nov-15-2006)

Tutorial #9: Dialogs, on Week#12 (Nov-22-2006)

Tutorial #10: Threading, Applets, Painting, and Layouts, on Week#13 (Nov-29-2006)

COURSE THEME PAPERS

There are three important papers singled out for students to study and to reflect throughout the whole semester's coursework:

Vat, K.H. (2006). Integrating Industrial Practices in Software Development through Scenario-Based Design of PBL Activities: A Pedagogical Re-Organization Perspective. *Journal of Issues in Informing Science and Information Technology (ISSN: 1547-5859 CD Version),*

Volume 3, June, pp. 687-708 (Choose Volume 3 from http://iisit.org/).

Birtle, Malcolm. (1998). Negotiated Learning Contracts in Team Projects. Annals of Software Engineering. 6: 323-341 (J.C. Baltzer AG, Scientific Publishers).

Presley, A., Sarkis, J., Liles, D., & Barnett, W. (1998). Participative Design Using Soft Systems Methodology. http://www2.truman.edu/~apresley/ais98.pdf

COURSE POLICIES

1. The student should attend class regularly unless excused by the instructor. A student with no absences or absences less than 10 percent of the whole semester's attendance will be awarded extra semester points, during the final accounting of semester score. In the fall-2006 semester, these extra semester points turn out to be 6.

2. Students will receive both a TEAM score and an INDIVIDUAL score on the work done in each milestone, based on the presentation, the major deliverables such as report, PowerPoint slides, and memo of understanding, and the support documents submitted, such as internal evaluations and personal contributions.

3. A student caught cheating on an examination will be given a zero for that exam. Any personal assignment copied from someone else will be graded as zero. When the instructor is unable to distinguish from original and copied work, then the instructor will award all students involved (especially, from across teams) a grade of zero for that work. For collaborative work, the overused expression, "we worked on it together" must be well articulated in terms of who did what for what purpose under what circumstances. If a student work with another student on a piece of project work, it is important to attach a clear declaration of work done individually, and cooperatively (a job divided into tasks assigned to respective students to finish individually before integration).

COURSE RESULT

The following tables present the results of students' semester work:

1. **Semester Grade and Score: Coursework (70) + Final Exam (30)**
2. **Semester Score (100): Course Project (55) + Mid-Term Exam (15) + Final Exam (30)**
3. **Course Project: Milestones #1, #2, #3 => Group + Personal Scores**
4. **Course Project: Milestone #4 => Group Score + Personal Bonus Score**
5. **Mid-Term Examination Score: *Written (125) + Practical (75)***
6. **Final Examination Score: Including Bonus Question (100 points)**

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Semester Grade and Score: Coursework (70) + Final Exam (30)

Student	Coursework Semester Total <70>	Final Exam Semester Total <30>	Semester Total Accrued <100>	Semester Grade	Scale Reference
s300-g1					
da4-2703-3	42.2	0.0	42.2	Incomplete	
da4-2707-1	48.1	13.5	61.6	C-	12
da4-2742-8	42.7	11.9	54.6	D+	11
da4-2746-6	40.0	5.3	45.3	F	Below 10
s300-g2					
da3-2850-8	61.9	27.1	89.0	A-	18
da4-2728-1	68.2	27.8	96.0	A	20
da4-2748-5	55.0	15.6	70.6	C+	14
da4-2778-9	56.5	16.4	72.9	B-	15
s300-g3					
da4-2741-2	38.8	14.3	53.1	D+	11
da4-2819-6	40.5	19.8	60.3	C-	12
da4-2844-6	33.8	11.3	45.1	F	Below 10
da4-2856-2	37.3	5.3	42.6	F	Below 10
s300-g4					
da3-2722-4	35.5	3.5	39.0	F	Below 10
da4-2740-9	51.3	12.8	64.1	C	13
da4-2747-2	46.5	20.6	67.1	C	13
da4-2805-1	00.00	0.0	0.0	W	
da4-2832-0	40.8	11.6	52.4	D	10
s300-g5					
da4-2702-7	52.9	17.3	70.2	C+	14
da4-2744-7	44.7	14.1	58.8	C-	12
da4-2774-1	21.1	3.6	24.7	F	Below 10
da4-2809-9	30.3	7.7	38.0	F	Below 10
da4-2811-0	48.1	18.7	66.8	C	13
s300-g6					
da4-2780-0	38.2	2.5	40.7	F	Below 10
da4-2792-6	10.4	0.0	10.4	F	Below 10
da4-2813-9	37.8	6.6	44.4	F	Below 10
da4-2815-8	49.4	22.3	71.7	C+	14
da4-2891-2	49.9	20.7	70.6	C+	14
s300-g7					
da4-2717-8	47.2	11.3	58.5	C-	12
da4-2730-2	59.7	18.9	78.6	B	16
da4-2787-3	50.6	12.4	63.0	C	13
da4-2880-9	57.2	23.6	80.8	B	16
s300-g8					
da4-2701-1	37.6	5.6	43.2	F	Below 10
da4-2749-1	40.6	19.1	59.7	C-	12
da4-2766-3	34.8	5.4	40.2	F	Below 10
da4-2859-7	40.2	9.9	50.1	D	10

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Semester Score (100): Course Project (55) + Mid-Term Exam (15) + Final Exam (30)

<After adjustment: Add 6 points to all students as Semester Bonus>

Student	First Three Milestones' Semester Total Group <25>	First Three Milestones' Semester Total Personal <20>	Last Project Milestone Semester Total with Bonus <10 x 2>	Mid-Term Exam Semester Total <15>	Final Exam Semester Total <30>	Semester Total Accrued <100>
s300-g1						
da4-2703-3	10.67	8.16	14.17	3.20	0.0	42.2
da4-2707-1	10.67	10.41	16.17	4.80	13.5	61.6
da4-2742-8	10.67	9.24	14.83	2.00	11.9	54.6
da4-2746-6	10.67	8.17	13.50	1.70	5.3	45.3
s300-g2						
da3-2850-8	16.18	13.16	17.50	8.70	27.1	89.0
da4-2728-1	16.18	15.50	17.83	12.70	27.8	96.0
da4-2748-5	16.18	11.76	16.83	4.30	15.6	70.6
da4-2778-9	16.18	12.16	17.16	5.00	16.4	72.9
s300-g3						
da4-2741-2	8.31	8.00	12.50	4.00	14.3	53.1
da4-2819-6	8.31	9.00	12.83	4.40	19.8	60.3
da4-2844-6	8.31	6.33	11.50	1.70	11.3	45.1
da4-2856-2	8.31	7.58	11.16	4.20	5.3	42.6
s300-g4						
da3-2722-4	11.16	4.75	12.00	1.60	3.5	39.0
da4-2740-9	11.16	12.04	15.34	6.80	12.8	64.1
da4-2747-2	11.16	10.83	15.00	3.50	20.6	67.1
da4-2805-1	00.00	00.00	0.00	0.00	0.0	0.0
da4-2832-0	11.16	8.75	12.67	2.20	11.6	52.4
s300-g5						
da4-2702-7	13.33	12.92	17.00	3.60	17.3	70.2
da4-2744-7	13.33	7.77	14.67	2.90	14.1	58.8
da4-2774-1	3.70	1.67	8.00	1.70	3.6	24.7
da4-2809-9	3.70	5.33	13.00	2.30	7.7	38.0
da4-2811-0	13.33	9.17	15.33	4.30	18.7	66.8
s300-g6						
da4-2780-0	12.06	6.00	11.67	2.40	2.5	40.7
da4-2792-6	3.43	1.00	0.00	0.00	0.0	10.4
da4-2813-9	12.06	7.75	12.00	0.00	6.6	44.4
da4-2815-8	12.06	10.17	15.00	6.20	22.3	71.7
da4-2891-2	12.06	12.25	14.34	5.30	20.7	70.6
s300-g7						
da4-2717-8	13.13	10.00	14.67	3.40	11.3	58.5
da4-2730-2	13.13	13.92	18.00	8.60	18.9	78.6
da4-2787-3	13.13	11.58	15.34	4.60	12.4	63.0
da4-2880-9	13.13	10.24	17.00	10.80	23.6	80.8
s300-g8						
da4-2701-1	8.41	7.34	13.67	2.10	5.6	43.2
da4-2749-1	8.41	7.51	13.34	5.40	19.1	59.7
da4-2766-3	8.41	6.17	11.34	2.90	5.4	40.2
da4-2859-7	8.41	7.83	14.67	3.30	9.9	50.1

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Semester Score (100): Course Project (55) + Mid-Term Exam (15) + Final Exam (30)

<Before adjustment>

Student	First Three Milestones' Semester Total Group <25>	First Three Milestones' Semester Total Personal <20>	Last Project Milestone Semester Total with Bonus <10 x 2>	Mid-Term Exam Semester Total <15>	Final Exam Semester Total <30>	Semester Total Accrued <100>
s300-g1						
da4-2703-3	10.67	8.16	14.17	3.20	0.0	36.2
da4-2707-1	10.67	10.41	16.17	4.80	13.5	55.6
da4-2742-8	10.67	9.24	14.83	2.00	11.9	48.6
da4-2746-6	10.67	8.17	13.50	1.70	5.3	39.3
s300-g2						
da3-2850-8	16.18	13.16	17.50	8.70	27.1	83.0
da4-2728-1	16.18	15.50	17.83	12.70	27.8	90.0
da4-2748-5	16.18	11.76	16.83	4.30	15.6	64.6
da4-2778-9	16.18	12.16	17.16	5.00	16.4	66.9
s300-g3						
da4-2741-2	8.31	8.00	12.50	4.00	14.3	47.1
da4-2819-6	8.31	9.00	12.83	4.40	19.8	54.3
da4-2844-6	8.31	6.33	11.50	1.70	11.3	39.1
da4-2856-2	8.31	7.58	11.16	4.20	5.3	36.6
s300-g4						
da3-2722-4	11.16	4.75	12.00	1.60	3.5	33.0
da4-2740-9	11.16	12.04	15.34	6.80	12.8	58.1
da4-2747-2	11.16	10.83	15.00	3.50	20.6	61.1
da4-2805-1	00.00	00.00	0.00	0.00	0.0	0.0
da4-2832-0	11.16	8.75	12.67	2.20	11.6	46.4
s300-g5						
da4-2702-7	13.33	12.92	17.00	3.60	17.3	64.2
da4-2744-7	13.33	7.77	14.67	2.90	14.1	52.8
da4-2774-1	3.70	1.67	8.00	1.70	3.6	18.7
da4-2809-9	3.70	5.33	13.00	2.30	7.7	32.0
da4-2811-0	13.33	9.17	15.33	4.30	18.7	60.8
s300-g6						
da4-2780-0	12.06	6.00	11.67	2.40	2.5	34.67
da4-2792-6	3.43	1.00	0.00	0.00	0.0	4.43
da4-2813-9	12.06	7.75	12.00	0.00	6.6	38.4
da4-2815-8	12.06	10.17	15.00	6.20	22.3	65.7
da4-2891-2	12.06	12.25	14.34	5.30	20.7	64.6
s300-g7						
da4-2717-8	13.13	10.00	14.67	3.40	11.3	52.5
da4-2730-2	13.13	13.92	18.00	8.60	18.9	72.6
da4-2787-3	13.13	11.58	15.34	4.60	12.4	57.0
da4-2880-9	13.13	10.24	17.00	10.80	23.6	74.8
s300-g8						
da4-2701-1	8.41	7.34	13.67	2.10	5.6	37.2
da4-2749-1	8.41	7.51	13.34	5.40	19.1	53.7
da4-2766-3	8.41	6.17	11.34	2.90	5.4	34.2
da4-2859-7	8.41	7.83	14.67	3.30	9.9	44.1

Course Project: Milestones #1, #2, #3 => Group + Personal Scores

Student	First Three Milestones' Semester Total Group <25>	First Three Milestones' Semester Total Personal <20>	First Three Milestones' Semester Total Group + Personal <45>
s300-g1			
da4-2703-3	10.67	8.16	18.83
da4-2707-1	10.67	10.41	21.08
da4-2742-8	10.67	9.24	19.91
da4-2746-6	10.67	8.17	18.84
s300-g2			
da3-2850-8	16.18	13.16	29.34
da4-2728-1	16.18	15.50	31.68
da4-2748-5	16.18	11.76	27.94
da4-2778-9	16.18	12.16	28.34
s300-g3			
da4-2741-2	8.31	8.00	16.31
da4-2819-6	8.31	9.00	17.31
da4-2844-6	8.31	6.33	14.64
da4-2856-2	8.31	7.58	15.89
s300-g4			
da3-2722-4	11.16	4.75	15.91
da4-2740-9	11.16	12.04	23.20
da4-2747-2	11.16	10.83	21.99
da4-2805-1	00.00 (absent always)	00.00 (absent always)	0.00
da4-2832-0	11.16	8.75	19.91
s300-g5			
da4-2702-7	13.33	12.92	26.25
da4-2744-7	13.33	7.77	21.10
da4-2774-1	3.70	1.67	5.37
da4-2809-9	3.70	5.33	9.03
da4-2811-0	13.33	9.17	22.50
s300-g6			
da4-2780-0	12.06	6.00	18.06
da4-2792-6	3.43	0.67	4.10
da4-2813-9	12.06	7.75	19.81
da4-2815-8	12.06	10.17	22.23
da4-2891-2	12.06	11.75	23.81
s300-g7			
da4-2717-8	13.13	10.00	23.13
da4-2730-2	13.13	13.92	27.05
da4-2787-3	13.13	11.58	24.71
da4-2880-9	13.13	10.24	23.37
s300-g8			
da4-2701-1	8.41	7.34	15.75
da4-2749-1	8.41	7.51	15.92
da4-2766-3	8.41	6.17	14.58
da4-2859-7	8.41	7.83	16.24

Course Project: Milestone #4 => Group Score + Personal Bonus Score

Student	Group (60)<10>	Personal Bonus (30)<10>	Milestone Bonus Semester Total <20>
s300-g1			
da4-2703-3	45.0 <7.50>	20.0 <6.67>	14.17
da4-2707-1	45.0 <7.50>	26.0 <8.67>	16.17
da4-2742-8	45.0 <7.50>	22.0 <7.33>	14.83
da4-2746-6	45.0 <7.50>	18.0 <6.00>	13.50
s300-g2			
da3-2850-8	53.0 <8.83>	26.0 <8.67>	17.50
da4-2728-1	53.0 <8.83>	27.0 <9.00>	17.83
da4-2748-5	53.0 <8.83>	24.0 <8.00>	16.83
da4-2778-9	53.0 <8.83>	25.0 <8.33>	17.16
s300-g3			
da4-2741-2	35.0 <5.83>	20.0 <6.67>	12.50
da4-2819-6	35.0 <5.83>	21.0 <7.00>	12.83
da4-2844-6	35.0 <5.83>	17.0 <5.67>	11.50
da4-2856-2	35.0 <5.83>	16.0 <5.33>	11.16
s300-g4			
da3-2722-4	40.0 <6.67>	16.00 <5.33>	12.00
da4-2740-9	40.0 <6.67>	26.00 <8.67>	15.34
da4-2747-2	40.0 <6.67>	25.00 <8.33>	15.00
da4-2805-1	0.00 <0.00>	00.00 <0.00>	0.00 (absent always)
da4-2832-0	40.0 <6.67>	18.00 <6.00>	12.67
s300-g5			
da4-2702-7	48.0 <8.00>	27.00 <9.00>	17.00
da4-2744-7	48.0 <8.00>	20.00 <6.67>	14.67
da4-2774-1	48.0 <8.00>	0.00 <0.00>	8.00
da4-2809-9	48.0 <8.00>	15.00 <5.00>	13.00
da4-2811-0	48.0 <8.00>	22.0 <7.33>	15.33
s300-g6			
da4-2780-0	40.0 <6.67>	15.00 <5.00>	11.67
da4-2792-6	0.00 <0.00> ABS	0.0 <0.00> ABS	0.00
da4-2813-9	40.0 <6.67>	16.00 <5.33>	12.00
da4-2815-8	40.0 <6.67>	25.00 <8.33>	15.00
da4-2891-2	40.0 <6.67>	23.00 <7.67>	14.34
s300-g7			
da4-2717-8	52.0 <8.67>	18.00 <6.00>	14.67
da4-2730-2	52.0 <8.67>	28.00 <9.33>	18.00
da4-2787-3	52.0 <8.67>	20.00 <6.67>	15.34
da4-2880-9	52.0 <8.67>	25.00 <8.33>	17.00
s300-g8			
da4-2701-1	40.0 <6.67>	21.00 <7.00>	13.67
da4-2749-1	40.0 <6.67>	20.00 <6.67>	13.34
da4-2766-3	40.0 <6.67>	14.00 <4.67>	11.34
da4-2859-7	40.0 <6.67>	24.00 <8.00>	14.67

Course Project: Milestones #1, #2, #3 => Group Score Only

Student	Milestone#1 (50)<5 points>	Milestone#2 (60)<5 points>	Milestone#3 (60)<15 points>	First Three Milestones' Semester Total <25>
s300-g1				
da4-2703-3	15 <1.5>	20.0 <1.67>	30.0 <7.50>	10.67
da4-2707-1	15 <1.5>	20.0 <1.67>	30.0 <7.50>	10.67
da4-2742-8	15 <1.5>	20.0 <1.67>	30.0 <7.50>	10.67
da4-2746-6	15 <1.5>	20.0 <1.67>	30.0 <7.50>	10.67
s300-g2				
da3-2850-8	31.0 <3.1>	39.5 <2.83>	41.0 <10.25>	16.18
da4-2728-1	31.0 <3.1>	39.5 <2.83>	41.0 <10.25>	16.18
da4-2748-5	31.0 <3.1>	39.5 <2.83>	41.0 <10.25>	16.18
da4-2778-9	31.0 <3.1>	39.5 <2.83>	41.0 <10.25>	16.18
s300-g3				
da4-2741-2	8.5 <0.85>	14.5 <1.21>	25.0 <6.25>	8.31
da4-2819-6	8.5 <0.85>	14.5 <1.21>	25.0 <6.25>	8.31
da4-2844-6	8.5 <0.85>	14.5 <1.21>	25.0 <6.25>	8.31
da4-2856-2	8.5 <0.85>	14.5 <1.21>	25.0 <6.25>	8.31
s300-g4				
da3-2722-4	9.5 <0.95>	22.0 <1.83>	33.5 <8.38>	11.16
da4-2740-9	9.5 <0.95>	22.0 <1.83>	33.5 <8.38>	11.16
da4-2747-2	9.5 <0.95>	22.0 <1.83>	33.5 <8.38>	11.16
da4-2805-1	9.5 <0.95>	0.00 <0.00>	0.00 <0.00>	00.00 (absent always)
da4-2832-0	9.5 <0.95>	22.0 <1.83>	33.5 <8.38>	11.16
s300-g5				
da4-2702-7	19.5 <1.95>	21.0 <1.75>	38.5 <9.63>	13.33
da4-2744-7	19.5 <1.95>	21.0 <1.75>	38.5 <9.63>	13.33
da4-2774-1	19.5 <1.95>	21.0 <1.75>	0.00 <0.00> ABS	3.70
da4-2809-9	19.5 <1.95>	21.0 <1.75>	0.00 <0.00> ABS	3.70
da4-2811-0	19.5 <1.95>	21.0 <1.75>	38.5 <9.63>	13.33
s300-g6				
da4-2780-0	15.5 <1.55>	22.5 <1.88>	34.5 <8.63>	12.06
da4-2792-6	15.5 <1.55>	22.5 <1.88>	0.00 <0.00> ABS	3.43
da4-2813-9	15.5 <1.55>	22.5 <1.88>	34.5 <8.63>	12.06
da4-2815-8	15.5 <1.55>	22.5 <1.88>	34.5 <8.63>	12.06
da4-2891-2	15.5 <1.55>	22.5 <1.88>	34.5 <8.63>	12.06
s300-g7				
da4-2717-8	22.5 <2.25>	33.0 <2.75>	32.5 <8.13>	13.13
da4-2730-2	22.5 <2.25>	33.0 <2.75>	32.5 <8.13>	13.13
da4-2787-3	22.5 <2.25>	33.0 <2.75>	32.5 <8.13>	13.13
da4-2880-9	22.5 <2.25>	33.0 <2.75>	32.5 <8.13>	13.13
s300-g8				
da4-2701-1	4.5 <0.45>	14.5 <1.21>	27.0 <6.75>	8.41
da4-2749-1	4.5 <0.45>	14.5 <1.21>	27.0 <6.75>	8.41
da4-2766-3	4.5 <0.45>	14.5 <1.21>	27.0 <6.75>	8.41
da4-2859-7	4.5 <0.45>	14.5 <1.21>	27.0 <6.75>	8.41

Course Project: Milestones #1, #2, #3 => Personal Score Only

Student	Milestone#1 (30)<5 points> Individual Assignment	Milestone#2 (30)<5 points> Individual Assignment	Milestone#3 (30)<10 points> Pair-Based Assignment	First Three Milestones' Semester Total <20>
s300-g1				
da4-2703-3	5 <0.83>	14.0 <2.33>	15.0 <5.00>	8.16
da4-2707-1	8 <1.33>	13.5 <2.25>	20.5 <6.83>	10.41
da4-2742-8	5 <0.83>	12.5 <2.08>	19.0 <6.33>	9.24
da4-2746-6	7 <1.17>	12.0 <2.00>	15.0 <5.00>	8.17
s300-g2				
da3-2850-8	16.5 <2.75>	18.5 <3.08>	22.0 <7.33>	13.16
da4-2728-1	19.5 <3.25>	19.5 <3.25>	27.0 <9.00>	15.50
da4-2748-5	14.5 <2.42>	19.0 <3.17>	18.5 <6.17>	11.76
da4-2778-9	13.5 <2.25>	18.5 <3.08>	20.5 <6.83>	12.16
s300-g3				
da4-2741-2	3.5 <0.58>	5.5 <0.92>	19.5 <6.50>	8.00
da4-2819-6	3.5 <0.58>	5.5 <0.92>	22.5 <7.50>	9.00
da4-2844-6	3.5 <0.58>	5.5 <0.92>	14.5 <4.83>	6.33
da4-2856-2	3.5 <0.58>	10.0 <1.67>	16.0 <5.33>	7.58
s300-g4				
da3-2722-4	3.5 <0.58>	0.00<0.00> ABS	12.50 <4.17>	4.75
da4-2740-9	6.0 <1.0>	13.0 <2.17>	26.60 <8.87>	12.04
da4-2747-2	5.0 <0.83>	14.0 <2.33>	23.00 <7.67>	10.83
da4-2805-1	5.0 <0.83>	0.00 <0.00>	00.00 <0.00>	00.00 (absent always)
da4-2832-0	6.0 <1.0>	12.5 <2.08>	17.00 <5.67>	8.75
s300-g5				
da4-2702-7	10.5 <1.75>	18.0 <3.00>	24.50 <8.17>	12.92
da4-2744-7	9.5 <0.10>	0.0 <0.00> ABS	23.00 <7.67>	7.77
da4-2774-1	10.0 <1.67>	0.0 <0.00> ABS	0.00 <0.00> ABS	1.67
da4-2809-9	10.0 <1.67>	5.0 <0.83>	8.50 <2.83>	5.33
da4-2811-0	10.0 <1.67>	6.0 <1.00>	19.5 <6.50>	9.17
s300-g6				
da4-2780-0	6 <1.00>	6.0 <1.00>	12.00 <4.00>	6.00
da4-2792-6	4 <0.67>	0.0 <0.00> ABS	0.0 <0.00> ABS	0.67
da4-2813-9	6 <1.00>	7.5 <1.25>	16.50 <5.50>	7.75
da4-2815-8	6 <1.00>	9.0 <1.5>	23.00 <7.67>	10.17
da4-2891-2	6 <1.00>	11.5 <1.92>	26.50 <8.83>	11.75
s300-g7				
da4-2717-8	10.0 <1.67>	18.0 <3.00>	16.00 <5.33>	10.00
da4-2730-2	13.0 <2.17>	18.5 <3.08>	26.00 <8.67>	13.92
da4-2787-3	12.5 <2.08>	19.0 <3.17>	19.00 <6.33>	11.58
da4-2880-9	14.0 <2.33>	18.5 <3.08>	14.50 <4.83>	10.24
s300-g8				
da4-2701-1	2.5 <0.42>	11.5 <0.42>	19.50 <6.50>	7.34
da4-2749-1	4.0 <0.67>	10.5 <0.67>	18.50 <6.17>	7.51
da4-2766-3	4.5 <0.75>	9.5 <0.75>	14.00 <4.67>	6.17
da4-2859-7	3.0 <0.50>	6.5 <0.50>	20.50 <6.83>	7.83

Course Project: Milestone #3 => Group Score + Personal Score

Student	Group (60)<15>	Personal (30)<10>	Milestone Semester Total <25>
s300-g1			
da4-2703-3	30.0 <7.50>	15.0 <5.00>	12.50
da4-2707-1	30.0 <7.50>	20.5 <6.83>	14.33
da4-2742-8	30.0 <7.50>	19.0 <6.33>	13.83
da4-2746-6	30.0 <7.50>	15.0 <5.00>	12.50
s300-g2			
da3-2850-8	41.0 <10.25>	22.0 <7.33>	17.58
da4-2728-1	41.0 <10.25>	27.0 <9.00>	19.25
da4-2748-5	41.0 <10.25>	18.5 <6.17>	16.42
da4-2778-9	41.0 <10.25>	20.5 <6.83>	17.08
s300-g3			
da4-2741-2	25.0 <6.25>	19.5 <6.50>	12.75
da4-2819-6	25.0 <6.25>	22.5 <7.50>	13.75
da4-2844-6	25.0 <6.25>	14.5 <4.83>	11.08
da4-2856-2	25.0 <6.25>	16.0 <5.33>	11.58
s300-g4			
da3-2722-4	33.5 <8.38>	12.50 <4.17>	12.55
da4-2740-9	33.5 <8.38>	26.60 <8.87>	17.25
da4-2747-2	33.5 <8.38>	23.00 <7.67>	16.05
da4-2805-1	0.00 <0.00>	00.00 <0.00>	0.00 (absent always)
da4-2832-0	33.5 <8.38>	17.00 <5.67>	14.05
s300-g5			
da4-2702-7	38.5 <9.63>	24.50 <8.17>	17.80
da4-2744-7	38.5 <9.63>	23.00 <7.67>	17.30
da4-2774-1	0.00 <0.00> ABS	0.00 <0.00> ABS	0.00
da4-2809-9	0.00 <0.00> ABS	8.50 <2.83>	2.83
da4-2811-0	38.5 <9.63>	19.5 <6.50>	16.13
s300-g6			
da4-2780-0	34.5 <8.63>	12.00 <4.00>	12.63
da4-2792-6	0.00 <0.00> ABS	0.0 <0.00> ABS	0.00
da4-2813-9	34.5 <8.63>	16.50 <5.50>	14.13
da4-2815-8	34.5 <8.63>	23.00 <7.67>	16.30
da4-2891-2	34.5 <8.63>	26.50 <8.83>	17.46
s300-g7			
da4-2717-8	32.5 <8.13>	16.00 <5.33>	13.46
da4-2730-2	32.5 <8.13>	26.00 <8.67>	16.80
da4-2787-3	32.5 <8.13>	19.00 <6.33>	14.46
da4-2880-9	32.5 <8.13>	14.50 <4.83>	12.96
s300-g8			
da4-2701-1	27.0 <6.75>	19.50 <6.50>	13.25
da4-2749-1	27.0 <6.75>	18.50 <6.17>	12.92
da4-2766-3	27.0 <6.75>	14.00 <4.67>	11.42
da4-2859-7	27.0 <6.75>	20.50 <6.83>	13.58

Course Project: Milestone #2 => Group Score + Personal Score

Student	Group (60)<5>	Personal (30)<5>	Milestone Semester Total <10>
s300-g1			
da4-2703-3	20.0 <1.67>	14.0 <2.33>	4.00
da4-2707-1	20.0 <1.67>	13.5 <2.25>	3.92
da4-2742-8	20.0 <1.67>	12.5 <2.08>	3.75
da4-2746-6	20.0 <1.67>	12.0 <2.00>	3.67
s300-g2			
da3-2850-8	39.5 <2.83>	18.5 <3.08>	5.91
da4-2728-1	39.5 <2.83>	19.5 <3.25>	6.08
da4-2748-5	39.5 <2.83>	19.0 <3.17>	6.00
da4-2778-9	39.5 <2.83>	18.5 <3.08>	5.91
s300-g3			
da4-2741-2	14.5 <1.21>	5.5 <0.92>	2.13
da4-2819-6	14.5 <1.21>	5.5 <0.92>	2.13
da4-2844-6	14.5 <1.21>	5.5 <0.92>	2.13
da4-2856-2	14.5 <1.21>	10.0 <1.67>	2.88
s300-g4			
da3-2722-4	22.0 <1.83>	0.00 <0.00> ABS	1.83
da4-2740-9	22.0 <1.83>	13.0 <2.17>	4.00
da4-2747-2	22.0 <1.83>	14.0 <2.33>	4.16
da4-2805-1	0.00 <0.00>	0.00 <0.00>	0.00 (absent always)
da4-2832-0	22.0 <1.83>	12.5 <2.08>	3.91
s300-g5			
da4-2702-7	21.0 <1.75>	18.0 <3.00>	4.75
da4-2744-7	21.0 <1.75>	0.0 <0.00> ABS	1.75
da4-2774-1	21.0 <1.75>	0.0 <0.00> ABS	1.75
da4-2809-9	21.0 <1.75>	5.0 <0.83>	2.58
da4-2811-0	21.0 <1.75>	6.0 <1.00>	2.75
s300-g6			
da4-2780-0	22.5 <1.88>	6.0 <1.00>	2.88
da4-2792-6	22.5 <1.88>	0.0 <0.00> ABS	1.88
da4-2813-9	22.5 <1.88>	7.5 <1.25>	3.13
da4-2815-8	22.5 <1.88>	9.0 <1.5>	3.38
da4-2891-2	22.5 <1.88>	11.5 <1.92>	3.80
s300-g7			
da4-2717-8	33.0 <2.75>	18.0 <3.00>	5.75
da4-2730-2	33.0 <2.75>	18.5 <3.08>	5.83
da4-2787-3	33.0 <2.75>	19.0 <3.17>	5.92
da4-2880-9	33.0 <2.75>	18.5 <3.08>	5.83
s300-g8			
da4-2701-1	14.5 <1.21>	11.5 <0.42>	1.63
da4-2749-1	14.5 <1.21>	10.5 <0.67>	1.88
da4-2766-3	14.5 <1.21>	9.5 <0.75>	1.96
da4-2859-7	14.5 <1.21>	6.5 <0.50>	1.71

Course Project: Milestone #1 => Group Score + Personal Score

Student	Group (50)<5>	Personal (30)<5>	Milestone Semester Total <10>
s300-g1			
da4-2703-3	15 <1.5>	5 <0.83>	2.33
da4-2707-1	15 <1.5>	8 <1.33>	2.83
da4-2742-8	15 <1.5>	5 <0.83>	2.33
da4-2746-6	15 <1.5>	7 <1.17>	2.67
s300-g2			
da3-2850-8	31.0 <3.1>	16.5 <2.75>	5.85
da4-2728-1	31.0 <3.1>	19.5 <3.25>	6.35
da4-2748-5	31.0 <3.1>	14.5 <2.42>	5.52
da4-2778-9	31.0 <3.1>	13.5 <2.25>	5.35
s300-g3			
da4-2741-2	8.5 <0.85>	3.5 <0.58>	1.43
da4-2819-6	8.5 <0.85>	3.5 <0.58>	1.43
da4-2844-6	8.5 <0.85>	3.5 <0.58>	1.43
da4-2856-2	8.5 <0.85>	3.5 <0.58>	1.43
s300-g4			
da3-2722-4	9.5 <0.95>	3.5 <0.58>	1.53
da4-2740-9	9.5 <0.95>	6.0 <1.0>	1.95
da4-2747-2	9.5 <0.95>	5.0 <0.83>	1.78
da4-2805-1	9.5 <0.95>	5.0 <0.83>	1.78
da4-2832-0	9.5 <0.95>	6.0 <1.0>	1.95
s300-g5			
da4-2702-7	19.5 <1.95>	10.5 <1.75>	3.70
da4-2744-7	19.5 <1.95>	9.5 <0.10>	2.05
da4-2774-1	19.5 <1.95>	10.0 <1.67>	3.62
da4-2809-9	19.5 <1.95>	10.0 <1.67>	3.62
da4-2811-0	19.5 <1.95>	10.0 <1.67>	3.62
s300-g6			
da4-2780-0	15.5 <1.55>	6 <1.00>	2.55
da4-2792-6	15.5 <1.55>	4 <0.67>	2.22
da4-2813-9	15.5 <1.55>	6 <1.00>	2.55
da4-2815-8	15.5 <1.55>	6 <1.00>	2.55
da4-2891-2	15.5 <1.55>	6 <1.00>	2.55
s300-g7			
da4-2717-8	22.5 <2.25>	10.0 <1.67>	3.92
da4-2730-2	22.5 <2.25>	13.0 <2.17>	4.42
da4-2787-3	22.5 <2.25>	12.5 <2.08>	4.33
da4-2880-9	22.5 <2.25>	14.0 <2.33>	4.58
s300-g8			
da4-2701-1	4.5 <0.45>	2.5 <0.42>	0.87
da4-2749-1	4.5 <0.45>	4.0 <0.67>	1.12
da4-2766-3	4.5 <0.45>	4.5 <0.75>	1.20
da4-2859-7	4.5 <0.45>	3.0 <0.50>	0.95

Mid-Term Examination Score: *Written (125) + Practical (75)*

Student	Written (125)	Practical (75)	Total (200)	Semester Score (15%)
s300-g1				
da4-2703-3	24	18	42	3.2
da4-2707-1	35	29	64	4.8
da4-2742-8	23	3	26	2.0
da4-2746-6	6	16	22	1.7
s300-g2				
da3-2850-8	34	82	116	8.7
da4-2728-1	76	93	169	12.7
da4-2748-5	19	38	57	4.3
da4-2778-9	9	57	66	5.0
s300-g3				
da4-2741-2	22	31	53	4.0
da4-2819-6	48	10	58	4.4
da4-2844-6	8	15	23	1.7
da4-2856-2	11	45	56	4.2
s300-g4				
da3-2722-4	16.5	5	21.5	1.6
da4-2740-9	21	69	90	6.8
da4-2747-2	25	21	46	3.5
da4-2805-1	0	0	0	0.0
da4-2832-0	21	8	29	2.2
s300-g5				
da4-2702-7	27	21	48	3.6
da4-2744-7	18	20	38	2.9
da4-2774-1	15	8	23	1.7
da4-2809-9	9	21	30	2.3
da4-2811-0	23	34	57	4.3
s300-g6				
da4-2780-0	12	20	32	2.4
da4-2792-6	0	0	0	0.0
da4-2813-9	0	0	0	0.0
da4-2815-8	47	35	82	6.2
da4-2891-2	46	24	70	5.3
s300-g7				
da4-2717-8	14	31	45	3.4
da4-2730-2	37	77	114	8.6
da4-2787-3	21	40	61	4.6
da4-2880-9	52.5	91	143.5	10.8
s300-g8				
da4-2701-1	28	0	28	2.1
da4-2749-1	20	52	72	5.4
da4-2766-3	9	29	38	2.9
da4-2859-7	21	23	44	3.3

Mid-Term Exam: Written Paper Score

Student	Short Questions (50)	Long Questions (75)	Total (125)
s300-g1			
da4-2703-3	17	7	24
da4-2707-1	18	17	35
da4-2742-8	5	18	23
da4-2746-6	6	0	6
s300-g2			
da3-2850-8	19	15	34
da4-2728-1	24	52	76
da4-2748-5	5	14	19
da4-2778-9	3	6	9
s300-g3			
da4-2741-2	7	15	22
da4-2819-6	16	32	48
da4-2844-6	4	4	8
da4-2856-2	11	0	11
s300-g4			
da3-2722-4	14.5	2	16.5
da4-2740-9	7	14	21
da4-2747-2	17	8	25
da4-2805-1	0	0	0
da4-2832-0	15	6	21
s300-g5			
da4-2702-7	17	10	27
da4-2744-7	7	11	18
da4-2774-1	10	5	15
da4-2809-9	9	0	9
da4-2811-0	13	10	23
s300-g6			
da4-2780-0	7	5	12
da4-2792-6	0	0	0
da4-2813-9	0	0	0
da4-2815-8	23	24	47
da4-2891-2	27	19	46
s300-g7			
da4-2717-8	3	11	14
da4-2730-2	17	20	37
da4-2787-3	12	9	21
da4-2880-9	19.5	33	52.5
s300-g8			
da4-2701-1	19	9	28
da4-2749-1	11	9	20
da4-2766-3	5	4	9
da4-2859-7	8	13	21

Mid-Term Exam: Practical Paper -> Original + Bonus Score

Student	Original (75)	Bonus (30)	Total (75)
s300-g1			
da4-2703-3	18	0	18
da4-2707-1	29	0	29
da4-2742-8	3	0	3
da4-2746-6	4	12	16
s300-g2			
da3-2850-8	55	27	82
da4-2728-1	65	28	93
da4-2748-5	38	0	38
da4-2778-9	47	10	57
s300-g3			
da4-2741-2	31	0	31
da4-2819-6	10	0	10
da4-2844-6	15	0	15
da4-2856-2	45	0	45
s300-g4			
da3-2722-4	5	0	5
da4-2740-9	61	8	69
da4-2747-2	13	8	21
da4-2805-1	0	0	0
da4-2832-0	8	0	8
s300-g5			
da4-2702-7	10	11	21
da4-2744-7	10	10	20
da4-2774-1	8	0	8
da4-2809-9	13	8	21
da4-2811-0	25	9	34
s300-g6			
da4-2780-0	20	0	20
da4-2792-6	0	0	0
da4-2813-9	0	0	0
da4-2815-8	29	6	35
da4-2891-2	15	9	24
s300-g7			
da4-2717-8	31	0	31
da4-2730-2	60	17	77
da4-2787-3	28	12	40
da4-2880-9	67	24	91
s300-g8			
da4-2701-1	0	0	0
da4-2749-1	52	0	52
da4-2766-3	24	5	29
da4-2859-7	8	15	23

Mid-Term Exam: Practical Paper -- Original Questions

Student	Q1 (25)	Q2 (25)	Q3 (25)	Total (75)
s300-g1				
da4-2703-3	8	0	10	18
da4-2707-1	25	4	0	29
da4-2742-8	3	0	0	3
da4-2746-6	4	0	0	4
s300-g2				
da3-2850-8	25	15	15	55
da4-2728-1	25	22	18	65
da4-2748-5	25	0	13	38
da4-2778-9	25	0	22	47
s300-g3				
da4-2741-2	16	0	15	31
da4-2819-6	10	0	0	10
da4-2844-6	5	6	4	15
da4-2856-2	25	10	10	45
s300-g4				
da3-2722-4	5	0	0	5
da4-2740-9	25	20	16	61
da4-2747-2	8	5	0	13
da4-2805-1	abs	abs	abs	0
da4-2832-0	5	0	3	8
s300-g5				
da4-2702-7	5	5	0	10
da4-2744-7	5	5	0	10
da4-2774-1	5	3	0	8
da4-2809-9	5	0	8	13
da4-2811-0	25	0	0	25
s300-g6				
da4-2780-0	10	10	0	20
da4-2792-6	abs	abs	abs	0
da4-2813-9	abs	abs	abs	0
da4-2815-8	23	0	6	29
da4-2891-2	15	0	0	15
s300-g7				
da4-2717-8	25	0	6	31
da4-2730-2	25	15	20	60
da4-2787-3	18	10	0	28
da4-2880-9	25	20	22	67
s300-g8				
da4-2701-1	0	0	0	0
da4-2749-1	25	5	22	52
da4-2766-3	10	0	14	24
da4-2859-7	0	5	3	8

Mid-Term Exam: Practical Paper -- Bonus Questions

Student	Q1 (10)	Q2 (10)	Q3 (10)	Total (30)
s300-g1				
da4-2703-3	0	0	0	0
da4-2707-1	0	0	0	0
da4-2742-8	0	0	0	0
da4-2746-6	8	0	4	12
s300-g2				
da3-2850-8	10	8	9	27
da4-2728-1	10	8	10	28
da4-2748-5	0	0	0	0
da4-2778-9	0	10	0	10
s300-g3				
da4-2741-2	0	0	0	0
da4-2819-6	0	0	0	0
da4-2844-6	0	0	0	0
da4-2856-2	0	0	0	0
s300-g4				
da3-2722-4	0	0	0	0
da4-2740-9	0	0	8	8
da4-2747-2	8	0	0	8
da4-2805-1	abs	abs	abs	0
da4-2832-0	0	0	0	0
s300-g5				
da4-2702-7	5	2	4	11
da4-2744-7	0	0	10	10
da4-2774-1	0	0	0	0
da4-2809-9	0	0	8	8
da4-2811-0	0	0	9	9
s300-g6				
da4-2780-0	0	0	0	0
da4-2792-6	abs	abs	abs	0
da4-2813-9	abs	abs	abs	0
da4-2815-8	0	0	6	6
da4-2891-2	9	0	0	9
s300-g7				
da4-2717-8	0	0	0	0
da4-2730-2	0	8	9	17
da4-2787-3	4	2	3	12
da4-2880-9	8	8	8	24
s300-g8				
da4-2701-1	0	0	0	0
da4-2749-1	0	0	0	0
da4-2766-3	1	1	1	5
da4-2859-7	7	0	8	15

Mid-Term Exam: Written Paper -> Short Questions

Student	Q1 (10)	Q2 (10)	Q3 (10)	Q4 (10)	Q5 (10)	Total (50)
s300-g1						
da4-2703-3	2	0	5	9	1	17
da4-2707-1	3	4	5	4	2	18
da4-2742-8	3	1	1	0	0	5
da4-2746-6	2	1	1	2	0	6
s300-g2						
da3-2850-8	4	4	6	3	2	19
da4-2728-1	5	8	8	3	0	24
da4-2748-5	2	0	3	0	0	5
da4-2778-9	3	0	0	0	0	3
s300-g3						
da4-2741-2	2	0	5	0	0	7
da4-2819-6	4	5	6	1	0	16
da4-2844-6	1	1	1	1	0	4
da4-2856-2	6	0	3	0	2	11
s300-g4						
da3-2722-4	6	1	7.5	0	0	14.5
da4-2740-9	3	0	4	0	0	7
da4-2747-2	8	2	7	0	0	17
da4-2805-1	abs	abs	abs	abs	abs	0
da4-2832-0	3	4	3	5	0	15
s300-g5						
da4-2702-7	5	2	4	6	0	17
da4-2744-7	1	0	5	1	0	7
da4-2774-1	3	2	5	0	0	10
da4-2809-9	2	4	0	3	0	9
da4-2811-0	4	0	9	0	0	13
s300-g6						
da4-2780-0	2	1	2	2	0	7
da4-2792-6	abs	abs	abs	abs	abs	0
da4-2813-9	abs	abs	abs	abs	abs	0
da4-2815-8	4	7	6	6	0	23
da4-2891-2	5	6	8	7	1	27
s300-g7						
da4-2717-8	1	0	1	1	0	3
da4-2730-2	6	2	9	0	0	17
da4-2787-3	4	2	3	3	0	12
da4-2880-9	4	4	7.5	4	0	19.5
s300-g8						
da4-2701-1	5	5	9	0	0	19
da4-2749-1	4	0	4	3	0	11
da4-2766-3	1	1	1	1	1	5
da4-2859-7	4	0	4	0	0	8

Mod-Term Exam: Written Paper -> Long Questions

Student	Q1 (25)	Q2 (25)	Q3 (25)	Total (75)
s300-g1				
da4-2703-3	3	4	0	7
da4-2707-1	4	5	8	17
da4-2742-8	3	5	10	18
da4-2746-6	0	0	0	0
s300-g2				
da3-2850-8	0	15	0	15
da4-2728-1	20	18	14	52
da4-2748-5	4	6	4	14
da4-2778-9	0	6	0	6
s300-g3				
da4-2741-2	5	5	5	15
da4-2819-6	6	21	5	32
da4-2844-6	0	1	3	4
da4-2856-2	0	0	0	0
s300-g4				
da3-2722-4	2	0	0	2
da4-2740-9	4	10	0	14
da4-2747-2	2	4	2	8
da4-2805-1	abs	abs	abs	0
da4-2832-0	2	2	2	6
s300-g5				
da4-2702-7	3	7	0	10
da4-2744-7	2	4	5	11
da4-2774-1	3	2	0	5
da4-2809-9	0	0	0	0
da4-2811-0	4	6	0	10
s300-g6				
da4-2780-0	2	0	3	5
da4-2792-6	abs	abs	abs	0
da4-2813-9	abs	abs	abs	0
da4-2815-8	14	5	5	24
da4-2891-2	8	7	4	19
s300-g7				
da4-2717-8	4	4	3	11
da4-2730-2	16	4	0	20
da4-2787-3	2	4	3	9
da4-2880-9	7	12	14	33
s300-g8				
da4-2701-1	5	4	0	9
da4-2749-1	0	2	7	9
da4-2766-3	1	0	3	4
da4-2859-7	2	5	6	13

Final Examination Score: Including Bonus Question (100 points)

Student	Response Questions (100)	Case Questions (100)	Bonus Question (100)	Total Exam Score (200)	Semester Score for Final Exam <30>
s300-g1					
da4-2703-3	0.0	0.0	0.0	0.0	0.0
da4-2707-1	17.0	28.0	45.0	90.0	13.5
da4-2742-8	15.0	24.0	40.0	79.0	11.9
da4-2746-6	23.0	12.0	0.0	35.0	5.3
s300-g2					
da3-2850-8	67.5	45.0	68.0	180.5	27.1
da4-2728-1	83.0	22.0	80.0	185.0	27.8
da4-2748-5	14.0	30.0	60.0	104.0	15.6
da4-2778-9	31.0	13.0	65.0	109.0	16.4
s300-g3					
da4-2741-2	14.0	31.0	50.0	95.0	14.3
da4-2819-6	42.0	25.0	65.0	132.0	19.8
da4-2844-6	15.0	15.0	45.0	75.0	11.3
da4-2856-2	25.0	10.0	0.0	35.0	5.3
s300-g4					
da3-2722-4	16.0	7.0	0.0	23.0	3.5
da4-2740-9	14.5	31.0	40.0	85.5	12.8
da4-2747-2	44.0	28.0	65.0	137.0	20.6
da4-2805-1	0.0	0.0	0.0	0.0	0.0
da4-2832-0	12.5	15.0	50.0	77.5	11.6
s300-g5					
da4-2702-7	19.0	26.0	70.0	115.0	17.3
da4-2744-7	14.0	30.0	50.0	94.0	14.1
da4-2774-1	15.0	9.0	0.0	24.0	3.6
da4-2809-9	26.0	0.0	25.0	51.0	7.7
da4-2811-0	28.5	21.0	75.0	124.5	18.7
s300-g6					
da4-2780-0	16.5	0.0	0.0	16.5	2.5
da4-2792-6	0.0	0.0	0.0	0.0	0.0
da4-2813-9	14.0	0.0	30.0	44.0	6.6
da4-2815-8	43.5	35.0	70.0	148.5	22.3
da4-2891-2	48.0	15.0	75.0	138.0	20.7
s300-g7					
da4-2717-8	5.0	20.0	50.0	75.0	11.3
da4-2730-2	16.0	35.0	75.0	126.0	18.9
da4-2787-3	9.5	13.0	60.0	82.5	12.4
da4-2880-9	52.0	40.0	65.0	157.0	23.6
s300-g8					
da4-2701-1	21.0	16.0	0.0	37.0	5.6
da4-2749-1	27.0	25.0	75.0	127.0	19.1
da4-2766-3	25.0	11.0	0.0	36.0	5.4
da4-2859-7	6.0	15.0	45.0	66.0	9.9

Final Examination Score: Response Questions (100 points)

Student	Q1 (10)	Q2A (10)	Q2B (10)	Q2C (10)	Q2D (10)	Q3 (20)	Q4 (20)	Q5 (10)	Total (100)
s300-g1									
da4-2703-3	abs	abs	abs	abs	abs	abs	abs	abs	0.0
da4-2707-1	5.5	4.0	2.5	1.0	0.0	4.0	0.0	0.0	17.0
da4-2742-8	2.0	3.0	0.0	1.0	3.0	5.0	1.0	0.0	15.0
da4-2746-6	5.0	4.0	2.0	2.0	4.0	6.0	0.0	0.0	23.0
s300-g2									
da3-2850-8	9.0	9.5	8.0	6.5	10.0	14.5	8.0	2.0	67.5
da4-2728-1	10.0	8.0	8.5	9.0	8.5	14.0	17.0	8.0	83.0
da4-2748-5	4.0	0.0	1.0	2.0	0.0	3.0	4.0	0.0	14.0
da4-2778-9	5.0	4.0	5.0	2.0	4.0	6.0	5.0	0.0	31.0
s300-g3									
da4-2741-2	1.0	7.0	0.0	0.0	0.0	4.0	0.0	2.0	14.0
da4-2819-6	7.0	6.0	4.0	2.0	7.0	13.0	3.0	0.0	42.0
da4-2844-6	2.0	3.0	2.0	2.0	3.0	3.0	0.0	0.0	15.0
da4-2856-2	2.0	2.0	2.0	2.0	5.0	4.0	4.0	4.0	25.0
s300-g4									
da3-2722-4	4.0	5.0	0.0	0.0	0.0	0.0	1.0	6.0	16.0
da4-2740-9	5.0	2.5	0.0	2.0	2.0	3.0	0.0	0.0	14.5
da4-2747-2	8.5	8.0	6.0	4.0	5.0	12.5	0.0	0.0	44.0
da4-2805-1	abs	abs	abs	abs	abs	abs	abs	abs	0.0
da4-2832-0	3.5	5.0	4.0	0.0	0.0	0.0	0.0	0.0	12.5
s300-g5									
da4-2702-7	3.0	4.0	2.0	2.0	2.0	4.0	2.0	0.0	19.0
da4-2744-7	3.0	3.0	0.0	3.0	5.0	0.0	0.0	0.0	14.0
da4-2774-1	2.0	1.0	2.0	1.0	3.0	1.0	5.0	0.0	15.0
da4-2809-9	5.0	5.0	3.0	4.0	3.0	6.0	0.0	0.0	26.0
da4-2811-0	5.0	2.0	2.0	6.0	5.5	7.0	1.0	0.0	28.5
s300-g6									
da4-2780-0	5.0	4.0	4.0	1.5	0.0	2.0	0.0	0.0	16.5
da4-2792-6	abs	abs	abs	abs	abs	abs	abs	abs	0.0
da4-2813-9	1.0	3.0	0.0	3.0	1.0	5.0	1.0	0.0	14.0
da4-2815-8	5.5	9.5	4.0	3.0	5.0	11.5	5.0	0.0	43.5
da4-2891-2	8.0	6.0	4.0	3.0	3.5	6.0	9.5	8.0	48.0
s300-g7									
da4-2717-8	4.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
da4-2730-2	5.0	3.0	0.0	3.0	1.0	4.0	0.0	0.0	16.0
da4-2787-3	3.5	2.0	0.0	1.0	1.0	1.0	1.0	0.0	9.5
da4-2880-9	6.0	7.0	10.0	7.5	4.5	14.0	3.0	0.0	52.0
s300-g8									
da4-2701-1	5.0	7.5	5.5	3.0	0.0	0.0	0.0	0.0	21.0
da4-2749-1	5.0	5.0	2.0	2.0	3.0	8.0	2.0	0.0	27.0
da4-2766-3	4.0	4.0	4.0	2.0	4.0	6.0	1.0	0.0	25.0
da4-2859-7	2.0	1.0	2.0	0.0	1.0	0.0	0.0	0.0	6.0

Final Examination Score: Case Questions (100 points)

Student	Qa (25)	Qb (25)	Qc (50)	Total (100)
s300-g1				
da4-2703-3	abs	abs	abs	0.0
da4-2707-1	8.0	5.0	15.0	28.0
da4-2742-8	4.0	5.0	15.0	24.0
da4-2746-6	2.0	5.0	5.0	12.0
s300-g2				
da3-2850-8	15.0	15.0	15.0	45.0
da4-2728-1	8.0	6.0	8.0	22.0
da4-2748-5	50	10.0	15.0	30.0
da4-2778-9	8.0	5.0	0.0	13.0
s300-g3				
da4-2741-2	8.0	8.0	15.0	31.0
da4-2819-6	15.0	10.0	0.0	25.0
da4-2844-6	0.0	5.0	10.0	15.0
da4-2856-2	5.0	5.0	0.0	10.0
s300-g4				
da3-2722-4	5.0	2.0	0.0	7.0
da4-2740-9	8.0	8.0	150	31.0
da4-2747-2	10.0	10.0	8.0	28.0
da4-2805-1	abs	abs	abs	0.0
da4-2832-0	5.0	5.0	5.0	15.0
s300-g5				
da4-2702-7	8.0	8.0	10.0	26.0
da4-2744-7	5.0	10.0	15.0	30.0
da4-2774-1	5.0	4.0	0.0	9.0
da4-2809-9	0.0	0.0	0.0	0.0
da4-2811-0	5.0	8.0	8.0	21.0
s300-g6				
da4-2780-0	0.0	0.0	0.0	0.0
da4-2792-6	abs	abs	abs	0.0
da4-2813-9	0.0	0.0	0.0	0.0
da4-2815-8	15.0	20.0	0.0	35.0
da4-2891-2	5.0	5.0	5.0	15.0
s300-g7				
da4-2717-8	5.0	5.0	10.0	20.0
da4-2730-2	10.0	10.0	15.0	35.0
da4-2787-3	3.0	5.0	5.0	13.0
da4-2880-9	15.0	15.0	10.0	40.0
s300-g8				
da4-2701-1	6.0	10.0	0.0	16.0
da4-2749-1	5.0	5.0	15.0	25.0
da4-2766-3	3.0	3.0	5.0	11.0
da4-2859-7	5.0	5.0	5.0	15.0

COURSE MEMORY

In this fall-2006 semester of SFTW300, I have been trying to put in place an electronic portfolio-based (ePortfolio) system to help track the learning of my students, and the pace and quality of my teaching performance. The vision is to create the necessary portfolio for each student to serve as his or her pathway from classroom to career. Currently, my conceptualization of the ePortfolio-based education starts from the means of capturing student progress through a specific sequence of course activities students undertake under my teaching assignment (involving student work, student reflection, and faculty comments related to various activities of teaching and learning) to the technological potential which allows students, faculty, and institutions to enable each student to have a personally managed, meaningful, coherent, integrated record of learning that demonstrates competence, transcends educational levels, and is portable across different aspects of learning be it formal or informal.

Specifically, it is convinced that such portfolios should provide the means for students to set learning goals, monitor and regulate their progress toward these goals, as well as develop their self-assessment skills. Practically, to realize the ePortfolio-based educational services, I need to keep a video record of my every lecture and tutorial, provide lecture and tutorial delivery records, render timely and relevant electronic resources for my students to absorb, and keep track of every piece of coursework done by my student be it done individually or in group. Essentially, instead of keeping a paper record of my students' work, I have resorted to keeping soft copies (electronic medium). The current course memory for SFTW300 in this past semester has occupied close to 500GB of hard-disk space, most of which are DVD videos of my lectures and students' coursework activities including presentation and workshop sessions. Please refer to the package of DVD's attached for your convenience. The open-sourced Eclispe 3.2.1 environment is recommended to see through the coursework records of my students. Please also peruse the folder of paper records of my lecture and tutorials delivery throughout the semester.

COURSE REFLECTION

It is my observations that the majority of students still believes that taking a course is largely listening to lectures, doing some homework at home, writing a test, and sitting for the final exam. Anything more than this "normal" mode of course delivery, and especially in project-based learning, is something strange that is to disrupt their busy schedule of attending classes and attending to their part-time jobs. They are largely finding it difficult to get used to project work, especially group-based project work with a clear definition of task assignments among team members. Quality of learning comes largely from instructors' talking and slides

instead of the down-to-earth experience of their individual learning processes. "Learn to learn" sounds too distant to be of immediate interest to their expected way of earning an acceptable grade to "get by" the four-year degree program. Perhaps, I might not be accurate enough in my understanding; yet, I am quite willing to listen and to see the situation of concerns more clearly.

COURSE EVALUATION

A formal course evaluation was conducted by the Faculty on December 1, 2006, exactly two weeks before the end of the semester's class schedule. There was an instructor-initiated course evaluation whose questions closely match the formal evaluation, and that was done on December 15, 2006, the last day of class. This second evaluation was designed to collect data from students regarding two aspects: course aspect, and instructor aspects. The results of this second evaluation are provided below. A copy of the evaluation form is also attached to interpret the results provided below:

Course Evaluation

Item under Evaluation	STD	D	SLD	SLA	A	STA	Average Score
1		1	8	12	6	3	122/30 = 4.07
2	2	2	3	13	8	3	125/31 = 4.03
3		4	8	6	12	1	122/31 = 3.94
4	4	8	7	6	4	1	91/30 = 3.03
5	1	5	6	10	5	4	118/31 = 3.81
6	1	3	8	10	8	1	117/31 = 3.77
7	4	8	6	4	6	1	90/29 = 3.10
8	5	8	9	5	3	1	89/31 = 2.87
9	1	3	3	9	12	1	114/29 = 3.93
10	2	4	4	9	9	3	121/31 = 3.90
11		9	4	11	5	2	111/31 = 3.58
12	3	4	9	7	5	3	109/31 = 3.52
Subtotal	23	118	225	408	415	144	1333/366 = 3.64

Instructor Evaluation

Item under Evaluation	STD	D	SLD	SLA	A	STA	Total Count
1	1	1	2	14	10	3	133/31 = 4.29
2		2	9	8	9	3	126/31 = 4.06
3	2	5	10	8	5	1	105/31 = 3.39
4		2	4	9	11	4	131/30 = 4.37
5	1	4	9	7	8	2	116/31 = 3.74
6	3	10	4	9	3	2	98/31 = 3.16
7		2	8	9	8	4	128/31 = 4.13

8		6	5	10	8	2	119/31 = 3.84
9	2	4	9	9	5	2	110/31 = 3.55
10	1	3	8	9	7	2	114/30 = 3.80
11	3	1	9	12	5	2	117/31 = 3.77
12	2	1	9	12	6	1	115/31 = 3.71
Subtotal	15	82	258	464	425	168	1412/370 = 3.82

Student Comments and Instructor Feedback

A) Strength and Weaknesses of this course

Form ID	Student Comments	Instructor Feedback
1.	*Strength*: Learn some special thing for design program; it is so fresh for me. *Weakness*: Use many time, money, paper, etc; notes can use e-note, don't waste the trees.	**Instructor:** The core of the course is user and task analysis for interface design. It involves learning some latest practices from the industry. Truly, it is "fresh" for students. Since many of the reference books put in *Library Reserved Materials* are copyrighted, it is not possible to scan them all and put them as e-notes. I suggest students come to consult the references in the Library, but photocopying of the referenced chapters is at students' discretion.
2.	*Strength*: The practice part of this course can give us the chance to learn something from "real world". *Weakness*: For the theory learning of this course, I feel that I cannot learn something systematically. There is too many reference and lacks of organization.	**Instructor:** Thanks for sensing something practical from the "real world." This course named *Software Psychology* is actually a dilemma, because the instructor needs to scaffold students' studies with numerous references in the field of human-computer interaction, as well as exemplary articles in user-centered design, to steer your focus on the semester's project-based learning. It is true that students need to exert a high cognitive loading to organize your learning systematically. My role as an instructor cannot impose my systemic thinking to students when they could always create their own paths in integrating their learning in their project work.
3.	*Strength*: We can learn more software technique of this course. Through this course, we have clear the relation of developer and client	**Instructor:** Thanks. I should be more grateful if you mention the importance of understanding user-requirements in doing software development.
4.	The course use different model to teach us. Actually, it is better than just stay in the seat and listen to the class; that is easier to accept the knowledge in practice. Since this course is a kind of abstract course, we must read a lot of	**Instructor:** Thanks for appreciating the course experience.

	books, so as to change the knowledge into some more practical form that is better.	
5.	The course is software psychology and it should teach us how to make system efficient. It should not spend too much time to teach how to use Java.	**Instructor:** I believe this student must not have read the course outline carefully, and he must have missed the first two weeks of class to miss the whole point. We did not do pure-Java programming in the semester, but Swing-based GUI programming to learn designing graphical user interfaces, to help complete the project work of user-interface prototyping on Web pages. This is an important part of the semester project. We are doing project-based learning this semester.
6.	The strengths is surely well of this course. But the strength of it is not shown yet. It is good to get touch with the management rationale for software development. However, I think this course should pay more attention to the reaction of public customer and how we direct the software development.	**Instructor:** That is why we need to learn user-centered design in action; namely, in terms of gathering requirements from customers (Requirements Workshop sessions), and verifying the requirements gathered through the agreed-upon Memo of Understanding, plus the follow-up participative design activities executed through the Joint Application Development sessions.
7.	*Strength*: Project-based learning gives students practical experience about course related context. *Weakness*: Too much coursework compared with other courses. Takes too much time to prepare the course for students. Affect the learning of other courses.	**Instructor:** It is very true that for students used to the didactic learning approach (less cognitive loading), when they first encounter project-based learning, would need a longer learning curve to appreciate the benefits of the approach, i.e., ability developed to address problems independently, and reflectively. The experience of project-based learning to the success of students' later careers has been echoed consistently, though.
8.	So many materials to read and copy; every time to pay much money to copy the material is not good. We do not have enough money to do this and no times to read all the material. The homework is too many. Every time using a lot of time to think about the meeting. In fact, there are no ideas for it and I think it is no use. Because it is only a paper of thinking. It is impossible to finish. Such as someone do not follow.	**Instructor:** As an instructor, it is my responsibility to put aside reference reading for students' use throughout the semester to supplement their study. It is also my suggestion that students should acquire the textbooks. The text and reference books suggested and made available in the library reserved are very important course materials to catch up with the lectures and project-work. As a conscientious student, you should make yourself understand the assigned reading by reading these reference resources one day at a time in the library. Or, you should choose to make some photocopies at your own discretion. There is no homework assigned in

		this semester, except for project-related documents you need to submit to obtain your scores.
10.	I think that in the course SFTW300 we can learn so many knowledge about software development. It is very useful for us to work in the future about the programming jobs. The only weakness I think that the jobs or assignments (in the course) are more than any other course in this semester 2006-2007. I imagine that if we have 48 hours in one day, it is just enough to finish all course jobs and other courses jobs well.	**Instructor:** I see that you have been working hard to overcome your difficulties in the semester. Keep going.
11.	The course let me know how to organize a project and how to finish it easy both individual and team-based project. But the course is a little bit speed our time. If the meeting is a little bit less is better.	**Instructor:** I see.
14.	Too many assignments. Actually, we have 4 projects, 1 mid-term, and 1 final exam. It is too many for me. Although I want to do that perfectly, I can just try my best to do that.	**Instructor:** There is only one project, divided into four milestones, respectively taking about one month each, except for the last, only 2 weeks. And this is a team project.
15.	*Strength*: It can make us more clearly to communicate developer and client and some meeting to improve of the course. *Weakness*: Let us no time to finish another course project or pass another course.	**Instructor:** It is important for students to learn how to manage their time, and understand the bottom line of work required to meet deadlines. There is no short cut to this learning or capability except through down-to-earth practice. Yet, the reward is often great in subsequent study. This is a matter of self-control and self-regulation on an individual, and also a matter of collaboration in a group-based project work setting.
17.	This course using project-based learning is good for us to discuss and learn from the project. The weakness is that the course time is not enough.	**Instructor:** Thanks for the encouragement. I see your point. Yet, this course has actually been extended to the middle of January 2007. Namely, we have more than 20 weeks altogether to accommodate our project-based learning.
18.	The course has some good projects for us, but it also has a lot of writing work for us. Actually, CIS students have some other projects to do; so, if there are more programs or software work in the course, it will be more popular.	**Instructor:** In this semester, SFTW300 is largely concerned with prototyping Web-based user interfaces based on a careful and ongoing elicitation process of user requirements. A lot of task analysis is involved, whose illustration is often done using some Swing-based Java programs together with some static or dynamic Web pages designed to support the

		client's specific purposeful activities.
19.	*Strength*: Learn more about how to design the structure of system, and work in a group.	**Instructor:** The core of the course is user and task analysis for interface design (Web user interface design) (milestones #1 and #2), followed by prototyping of the system services (milestone #3) and usability testing or study (milestone #4). Anyway, thanks for your comments.
20.	I think this course is very useful for a student to be a professional engineer or join a computer development company. Because it provides some real software developing experiences. But, this course takes very much time in this semester and the students have little time to do other things.	**Instructor:** I see. Learning how to budget and manage our time for coursework (especially when doing several courses together) is a constant practice. Students must be alert not to waste time haphazardly. So, it is recommended that if you have a part-time job which so much occupies two to three evening hours of yours, you must be further alert to cherish your free time of study. Your time invested in your study should earn you a better position to make your living after your 4 years of study.
22.	This course may improve my team-work techniques.	**Instructor:** I see. Indeed, group-based project work is an important emphasis of this course.
23.	For me, it is a good course to learn the work in the real world. Simply, it is a practical class. However, this course cannot fully virtual a real environment because the equipment, students and environment. It always makes me tired because I do pay but do not gain as much as I pay.	**Instructor:** I see. There is no short cut to learning something, and internalize it as your own knowledge, which is then externalized in your project work. The learning curve fluctuates among different students. That is why you need to work in teams to complement one another. I suggest that you should set clear goals in your study, and reflect how far you have reached, and devise strategies to bridge the gaps. In a team project environment, you have the responsibility to share your work with your team members and expect their suitable responses to help improve the situation.
25.	Course works are quite heavy.	**Instructor:** I see. Students getting used to the traditional didactic mode of learning are more likely to experience the difficulty of managing time to get the work done in the project-based learning style. Students must be encouraged and empowered from time to time in order to improve their learning outcomes, and to shorten their learning curves. This is an invaluable opportunity to grow up as a university student.
26.	(Original in Chinese) I think this course could practically enable us to learn how to interact with clients in software	**Instructor:** I see. Thanks for catching the core of our work in the semester.

	requirements management.	
28.	This course has many works to do, and the students were choosing 6 ~ 7 courses, is hard to spend time on those courses. But, this course makes me know more about Java. However, the time scheduled is not good enough. The milestone#1 has a month time, and the milestone#4 only several days.	**Instructor:** Thanks for letting me know your difficulties, and please be reminded that we actually have one month's time for the first three milestones, and seventeen days for the last milestone 4. Please check your schedule carefully.
29.	*Strength*: Learn to be a real case developer. *Weakness*: Spend too much time on the project; ignore the learning of other courses.	**Instructor:** I see. Please learn not to ignore the other courses when you are working conscientiously in a specific course. This is a life lesson you must manage to learn because in the real life of work, we seldom have the luxury of doing only one thing at a time. We need to learn how to make ends meet.
30.	No comments, because I don't know a way of software psychology.	**Instructor:** I see.
31.	This course may be good to learn something about software program. But, the project work is too many, because many students have taken more than 5 courses. If one day has 48 hours, it can finish all the things in one day.	**Instructor:** I see. Please do not concentrate on taking many courses when taking fewer courses could enhance the quality of your study. It is no shame to finish the program a bit later, with a better foundation of professional expertise.

B) Strength and Weaknesses of the teaching of the instructor

Form ID	*Student Comments*	*Instructor Feedback*
1.	*Strength*: Have the real heart to teach us; have little improve than last year. *Weakness*: Not clear; not enough professional; "no charge for excuse to us"	**Instructor:** Thanks for being teachable as a student. I should appreciate it if you could be more concise on what areas of my teaching is to be made more professional.
2.	The course material lacks organization. Don't just say go to the library to see something, actually, the material is too much, and confuse us. It's better to use WebCT to put some important announcements there and also prepare Course Notes just like other teachers. The reference material should focus on the course notes as one kind of extension, and make it as brief as possible. Don't say chapters X-Y of some books. It better abstract some important concepts for us and put them into WebCT, because more than 20 books is hard for us to master, and cost	**Instructor:** Thanks for the valuable comments. Please do not forget the important course resources (including lecture notes) made available in our Library Reserved Materials under SFTW300, which is updated at the end of each week, mostly on Saturday afternoon. The delivery style of *Software Psychology* in this semester has been largely project-based learning, a modified form of problem-based learning. This style of instruction requires of the students to look up and identify suitable resources in the process of working out the project problems at hand. And this is done as a form of group-based project work. The focus of this semester as

	lots of time and money to copy them.	introduced in the first week of class, is user-centered design in Web project prototyping. The blueprint of the students' work and learning throughout the semester is summarized in my course note (paper) and made available to the whole class in that first week of our semester. Please recall the paper "Integrating Industrial Practice in Software Development through Scenario Based Design of PBL Activities." All the reference reading assigned and suggested for your photocopying, must be understood on the basis of how useful it is to our project work, in terms of technique, and/or contextual understanding of user-centered design. It is that simple. If students get confused, my experience indicates that they might have forgotten to carefully read the blueprint paper. Please also do not ignore the second important paper delivered toward the middle of the semester "Negotiated learning contracts in team projects". The idea of this paper is to invite you to pause, to reflect, and to ask what learning I am to acquire, in what ways, with what resources, and/or what sort of collaboration with my team members? This is the style of independent autonomous learning characterized by university students, not any longer the style often encountered in the conventional secondary schools (didactic in a sense that students must rely on the teacher as the sole source of knowledge). The simplification of truth (knowledge) by instructor and then fed to students as second-handed knowledge, is not my encouraged style of learning. Besides, since most of you have chosen not to buy your designated textbooks to correlate with my lectures, it becomes much more important to provide reading resources for the whole class to reference my lectures. Yet, it is always my recommendations that students should purchase their textbooks and follow with the instructor's lectures accordingly. Notes cannot replace a textbook whose author(s) have spent their "blood" to finish it (which happens to be so easily photocopied with not much respect to their copyrights).
3.	*Strength*: Our instructor Mr. Vat is very	**Instructor:** Thanks for your encouragement.

	enthusiastic about this course. He has a sense of responsibility.	
4.	The instructor had good enthusiasm but the amount of job and project is too much; occupy my whole life-time; so that cannot encourage me in this course	**Instructor:** I share your understanding; it takes a conscientious student to make a man of learning.
5.	He spent many time to do the class work. It may be too much to him and us.	**Instructor:** It is important to demonstrate in class our practical work such as conducting a interview meeting, requirements workshops, and joint application development sessions, besides helping students to understand using the Swing library with Java, through the Eclipse environment.
6.	The amount workload of course work is appropriate in frankly. However, the instructions cannot follow the steps of the assignment of course work. It directly induces a great amount of low quality work. Specially, I think the instructions should be stated one by one clearly, and cover all the areas, tell the students what is the important part. The period between instruction released time and course work assignment time should be well controlled. Of course, it is difficult for an instructor to control it.	**Instructor:** It is preferable to have first studied some techniques and then apply the same to solve the problems at hand. However, in project-based learning, we need to acquire the skill of just-in-time learning; namely, because of the job to be accomplished, we need to identify what needs to be learned, and how to learn it, and how much to allow learning the specific techniques. Then apply the learning, reflect, and collect the lessons learned, and start the cycle again. This is the basic practice of "learning to learn". It is the most important know-how we need to acquire in life. That is one of the specific goals in this course. I believe you starting perceiving the challenge now, and you should proceed to accept this challenge and do a good job in acquiring learning and accomplishing your work at hand.
7.	*Strength*: Clearly shows up the framework of the class. Give guidance of project work clearly. *Weakness*: Not arranging the time of project-based activity in the best way.	**Instructor:** It is planned to have one month for each of the four milestone: Sep, Oct, Nov, and Dec. However, owing to semester constraints (holidays) in delivering lectures and tutorials, we achieved allowing one month for the first three milestones, but only about two weeks for the last (fourth) milestone.
8.	He teaches us in a professional way, but I am sorry I cannot get it. I know he has many prepared to teach us. But it is also too many. If I want to get the main point, it will spend a lot of times.	**Instructor:** Please read the course syllabus and schedule for course work carefully, and make sure you are aware of what to accomplish in the semester, and work out your learning in a down-to-earth manner. It takes efforts to learn something. Don't give up.
10.	I think that Mr. Vat has ten years experience in the SFTW300 course; so, he is very suitable to be this course instructor and he has the knowledge of	**Instructor:** Thanks for your being considerate of my workload, too.

	SFTW300 well. The only weakness of the teaching of the instructor is so many jobs done only one person; maybe, Mr. Vat can apply to the university to add a teaching assistance. It can help reduce the jobs taking of the instructor and prepare the course much better.	
11.	The instructor has a lot of knowledge about the course. He teaches us a lot of useful things, both in how to design a program and how to finish a project.	**Instructor:** Thanks for your support and appreciations.
14.	Prepare a lot of things and try to teach us in the professional way. But it is really too much for me.	**Instructor:** I see. Maybe, you need some help from your team members to share your workload.
15.	*Strength*: Let us know more about meeting and communications; let us make more clearly list, pack up the file namely, file clearly. Improve or disadvantage for above. *Weakness*: Give marks too hard and too many works.	**Instructor:** I see.
17.	The instructor is well prepared; the course and student assessment was done fairly. The weakness is the project topic that the instructor gave, is not very interesting for me.	**Instructor:** I see.
18.	If the instructor can often respect the student's free time, he will be a better instructor.	**Instructor:** I see. Are you implying we should not be having meetings like Requirements Workshop, Joint Application Development, Review, and Evaluation Sessions, outside the class hours? I love to do so, except for the fact that we need the regular class hours to complete the Swing tutorials, and to pilot the course activities, in terms of upfront lectures and discussion, and other course management activities. Thanks for spending time (your free time) to learn in this course.
20.	The teacher can explain the lecture in very good English. But I think he can give some time to the students to ask some questions about the tutorials.	**Instructor:** Thanks. I do have my office hours set from 1:00 to 2:00 at library L219-3/4 from Monday to Friday. Please do not forget that you are welcomed to ask me any questions during these office hours even though you might be bringing your lunch into the consultation room.
22.	The instructor gave me more project works than any other courses.	**Instructor:** I see. This must be the first time you ever participate in group-based project work, in a semester oriented towards project-based learning. Students must learn to manage their own learning throughout the

		project duration. Certainly, students need to do a lot of housekeeping of their knowledge acquired in the process.
23.	*Strength*: English is good. Documentation is enough for guiding. From his behavior, I can learn much besides the course. Weakness: Too much documentation! In honest speaking, I really lost a lot of bonus and experience in other courses because of the huge amount of works in this course. In addition, after finished the huge amount of work, I always get very low bonus. This situation really makes me disappointed times by times. And make me start afraid of study. That is the most important for me.	**Instructor:** Please pay attention to the scoring advice given in the evaluation session, and make sure that your team incorporates them in your next set of milestone deliverables. Ask your team members' help to enable the whole team to score higher. Please do not forget the importance of writing a good description of your Personal Contributions, including your perceived major contribution.
25.	Well prepared, and organized.	**Instructor:** Thanks for your encouragement.
26.	(Original in Chinese) The lecturer is very enthusiastic in his teaching, and the course lectures and materials are delivered in a very organized manner.	**Instructor:** Thanks for your encouragement.
28.	The teaching style is interesting, but the instructor is almost use his ideas and not interactive with student enough. I suggest that the instructor has to ask more students' ideas and to know their works, which are hard to finish or implement. That will give a big improvement.	**Instructor:** Thanks for your information. Please be advised that you are always welcomed to come asking for help during my regular office hours from Monday to Friday at Library L209-3/4, from 1:00 to 2:00. I am interested in knowing more of your thinking and difficulties.
29.	*Strength*: Work out a project in a real case. *Weakness*: There is no relationship between tutorials and projects. Many meetings have to do after class.	**Instructor:** As emphasized time after time in class and tutorials, you need to make use of the Swing-based Java programs (covered in the tutorials) in many of your Web pages prototype (in milestone #3) to illustrate some useful services in the form of popup applications for your client. Please do not ignore your learning in the 10 tutorials covered throughout the semester.
30.	I hope instructor teaches some current affair about computer, software, and hardware information.	**Instructor:** I see. Please read our course syllabus very carefully.
31.	Time planning is the weakness. I know you have many things to teach. But it cannot use a lot of time after class. It must have a well time planning before this semester, including the project work.	**Instructor:** I see. It looks like spending time outside the class hours (in our case, from 1:00 to 2:00 p.m., in Milestone #1, and from 6:00 to 8:00 p.m. in Milestone #2, as well as from 4:00 to 6:00 p.m. in Milestone #3, for each group during weekdays) is not to be appreciated, even though this means an

		important part of your semester learning.

C) Suggestions on improving the quality of course management and teaching performance

Form ID	*Student Comments*	*Instructor Feedback*
1.	a. Learn more … yourself. b. Don't change the thing so suddenly. c. Don't give too low mark for us in milestone. Maybe, this is not so good product of us, but we have spent our blood to do this.	**Instructor:** Thanks for urging us teachers to learn more ourselves. I should appreciate it if you could be more concise on what aspects of our class have been changed so suddenly. According to my lecture records, here are the major changes performed in the semester: a) Changed the date of the mid-term written from Dec-6-2006 to Dec-14-2006 because some of you have participated in a trip to Hong Kong to attend the International Telecom Expo. b) Changed the date of the JAD for g5g2 from Dec-13-2006 to Dec-15-2006, from 6:00 – 8:00 p.m. because of the University's Christmas dinner at Macau Tower. c) Changed the time of the JAD for g6g8 on Dec-6-2006 from 6:00 - 8:00 to 4:00 – 6:00 as a result of Issac's request forwarded through Anthony Tam. Scoring in the milestone is largely your responsibility once the instructor has released the guideline for evaluation. It is suggested that you follow the advice given in class and in the milestone evaluation session of your group to see how you could acquire a better grade. My job as an instructor is to enable you to learn by helping you see through your weakness in the project work. I respect each group's efforts spent in the milestone. Yes, you have spent "your blood" to do this. So, make sure to write a concise description of your Personal Contributions, making sure not to forget to emphasize your major contributions in the milestone.
4.	All is OK, except the amount of job.	**Instructor:** I see.
6.	In this semester, tons of redundant work and inappropriate work is done. I think this amount should be controlled by the instructor.	**Instructor:** As far as learning is concerned, there is no surrogate to replace your hard work. It is true that in order to acquire the skills required, we need to iterate before we could properly manage our learning. In our

		first milestone, our focus is researching on ideas behind the owner's topics. In the second milestone, our focus is analyzing our client's topics, including doing domain-specific research on the client's topic. This is not redundant work, but applying the techniques acquired in the first milestone in the second. It is not likely for the instructor to control the amount of time or work students need in acquiring the technique. Teaching is one thing, and learning by students on their initiative is another. Some students require a longer learning curve; others don't.
7.	Reduce the number of reference books and textbooks to 5 – 7; include only most important books; balance the proportion between project-based and traditional learning; the length of the exam questions may be reduced to fit the time length; milestone time can be adjusted to an optimal way.	**Instructor:** Thanks for the suggestions. The selection of reference books is often done on the categories required. Three from each category easily make 18 reference texts for a semester with 6 major contexts: human-computer interaction, user-centered design, user and task analysis, prototyping, and evaluation. It is often up to the discretion of the students to select the most important books according to their work in hand concerning the specific project aspect.
10.	In this part, I just want to say one thing. Does Mr. Vat know that we are the first year to start needing a GPA 2 or over if we can graduate successfully. In the course SFTW241, the average mark of the whole class is too pitiful. Can you give the grade of each student higher if you see the student working hard to do something though not being good enough. I expect that all students taking SFTW300 course can get a satisfied mark or grade what they think. Of course, except for those doing nothing.	**Instructor:** My role as an instructor is to empower students to acquire their necessary learning, while they are doing their coursework under my teaching assignment. It is my experience that students demonstrating their efforts to learn and learn in a conscientious way would earn their scores not just satisfactorily, but also exemplarily.
11.	If the projects is a little bit less is better, and the students will more like. Thank you.	**Instructor:** I see. My experience shows students gain more capability to learn on their own after project-based learning, than after traditional teaching. So, it may require of you a longer learning curve at the beginning, but the harvest is always great in your subsequent studies.
14.	Hope that the amount of assignment can be less.	**Instructor:** I see.
15.	Don't give many works. And answer student questions clearly. Give marks easily.	**Instructor:** I would much appreciate if you could be more specific in regard to your indication that my answering to students'

		questions is not clear enough.
17.	I think the development topic is better for free-to-choose by client or maybe, more topic for us to choose from: e.g., online bank, games, e-learning system, and hotel booking.	**Instructor:** I see. Thanks.
22.	Many students fear this course because of much many project works of the course.	**Instructor:** I see. Students must learn to get used to coursework since this is what makes an ordinary student a man of learning, especially on their way to becoming professional practitioners in software development.
23.	Since time is limited to everybody, the standard of study could not focus on only the most intelligent one. If you can stand on students' view, rearrange a little bit the work distribution it will be so nice of you. Let us see a formula: 24 (day hours) – 8 (sleep) – 2 (diet) – 10 (school) – 1 (traffic) = 3 (time left to study). We have a total of six subjects. That means generally we can have half an hour to finish one subject a day. Anyway, I always spend one hour up to finish one meeting minutes in this course. However, I also have a part-time job, for at least 3 hours a day. That is the most typical student's life.	**Instructor:** Many students have their part-time jobs these days. I do not have any objections. Yet, time is a scarce resource for those who would like to do more in their study, besides having their part-time jobs. As a conscientious student, you need to make your own decisions as to what to do, when you discover that your part-time job might affect your study. The standard set in each course for each student to reach in a university program is not to be ignored. It is a serious matter that we teachers need to stick to this standard to deliver our courses, with our expertise. It is not likely to change this standard haphazardly; otherwise, we are creating problems in exercising fairness in the assessment of each student in class.
26.	(Original in Chinese) I think the lecturer has done a good job in organizing the course delivery. Besides, he always uses his own time to help us learn something more; he is also very patient in answering our queries.	**Instructor:** Thanks for recognizing my using a lot of my own time (shared with my family indeed), in helping you guys to learn more outside of class hours.
28.	Please use as simple as possible format of teaching. Since we are students and there are many courses to study with, using simple structure teaching is good enough to let the students know a basic format of learning. Not to assign too many works to do and ask more about student ideas and also more communication with student is a better way to let the instructor know the students' need or what they are lacking of.	**Instructor:** Thanks for the suggestion. Problem-based learning emphasizes a lot of your group-based project work. And as instructor and as the facilitator I am quite willing to listen to students' difficulties and extend as much scaffolding as possible. But, it is important that students must be active enough to ask questions before the instructor could see where to extend help. There is a 1-to-35 teacher to student ratio in our class. It is not very likely that the instructor alone can have enough time to interact with each student in each class of 120 minutes, taking into account the time for lecture delivery and

		tutorial demonstration. Please let me know more of your problems by emailing me or arranging an interview with me.

Evaluation Form Attached as follows:

All the evaluation forms filled in by students for my evaluation are available for inspection, and are attached for perusal purpose.

University of Macau, Macau

Faculty of Science & Technology

Department of Computer & Information Sciences

SFTW 300

Software Psychology

First Semester 2006-2007

Course and Instructor Evaluation by Students

Date: December 15, 2006, J210   *Time Allowed: 30 Mins*

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Results:

1) This is a 2-part course and instructor evaluation survey, plus a *Comments* portion for written feedback.

2) Please complete each evaluation item by ticking your choice of parentheses representing your experience of the situation of concern: [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ].

3) The notation used to indicate the evaluations of each item are: (STD - 1) strongly disagree, (D - 2) disagree, (SLD - 3) slightly disagree, (SLA – 4) slightly agree, (A - 5) agree, and (STA - 6) strongly agree.

4) This paper is written individually. Please do not chat with other students while completing this survey.

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Please Turn Over!

Course Evaluation

1. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The course has been conducted according to the syllabus outline at the beginning of the semester.

2. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The course has been presented well prepared, in terms of the resources provided to the students.

3. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The organization of instruction and coursework throughout the semester has been well demonstrated.

4. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The quality of instruction demonstrated in the course has induced students' interest in the further exploration of the subject matter covered throughout the semester.

5. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The course style of instruction through project-based learning has been well received among students.

6. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The course arrangement of team-based project work has been well received among students.

7. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The course assessment of students' individual performance has been conducted on a fair basis.

8. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The amount of coursework required throughout the semester has been fairly distributed.

9. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The learning received by students has been perceived as something useful in the subsequent careers or studies of the students.

10. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The course has brought forth some of the latest practices or learning in the related field of professional expertise.

11. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The course has been managed to allow students to perceive the inter-relationships of the knowledge (or learning) acquired and required in other courses.

12. [STD ( )   D ( )   SLD ( )   SLA ( )   A ( )   STA ( )   ]

The course has been a good learning experience in your chosen program of study.

Instructor Evaluation

1. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor came to class well prepared.

2. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor's presentations were well organized.

3. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor presented course ideas very clearly.

4. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor had great enthusiasm for the subject.

5. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor's knowledge of the subject is good.

6. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor's student assessment was done fairly.

7. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor was available for consultation outside the class.

8. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor's laboratory portion of the course was well coordinated with the lecture portion.

9. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor has effectively demonstrated proper use of equipment in the laboratory.

10. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor was knowledgeable about the subject matter of the course.

11. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor was patient with my questions.

12. [STD ( ) D ( ) SLD ( ) SLA ( ) A ( ) STA ( )]

The instructor has blended an innovative style of learning with traditional teaching practice.

Comments

1) What do you think the strengths and weaknesses of this course?

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2) What do you think the strengths and weaknesses of the teaching of the instructor?

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3) Any comments or suggestions on improving the quality of course arrangement and teaching performance.

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