

I. GROUP MANAGEMENT FUNCTIONS

Quality	Unsatisfactory	Rating	Exceptional	Comment
Valuable team member	<ul style="list-style-type: none"> lacks initiative only assumes responsibility when forced or for personal reasons untrustworthy, deceptive, hides own mistakes, takes credit for everything 		<ul style="list-style-type: none"> willing to take on unpopular tasks able to defer to the groups' needs helps form cohesive team 	
Supports work and discussion of teammates	<ul style="list-style-type: none"> does not seek feedback is defensive and fails to respond to feedback 		<ul style="list-style-type: none"> presents extra material supports claims with appropriate references clearly explains ideas / produces innovative ideas seeks to understand views of others truly helps other to learn 	
Leadership	<ul style="list-style-type: none"> is dictatorial refuses to share workload lacks initiative dominates the group 		<ul style="list-style-type: none"> plans effective meetings ensures equitable participation helps team reach consensus encourages comments from everyone listens to others is consistent and follows-through takes initiative seeks appropriate responsibility deals well with different personality types manages domineering members delegates to use team members strengths 	
Cares about teamwork	<ul style="list-style-type: none"> only wants successful product no interests in teamwork hinders group process pleases superiors while undermining peers 		<ul style="list-style-type: none"> supports others in sharing their ideas works co-operatively pays attention to team dynamics permits appropriate time for building team rapport 	
Prepared	<ul style="list-style-type: none"> presents the minimal amount of material or ideas seldom supports ideas with facts from class or readings 		<ul style="list-style-type: none"> always prepared for meetings responsive acts in a timely fashion completes work efficiently and thoroughly 	

Remember you are assessing contribution — not effort, difficulty, inconvenience etc.

Unacceptable			Satisfactory			Exceptionally good		
1	2	3	4	5	6	7	8	9

II. IDEA GENERATION

Quality	Unsatisfactory	Rating	Exceptional	Comment
Contributes to phase goal	<ul style="list-style-type: none"> misses meetings is unprepared 		<ul style="list-style-type: none"> is familiar with material makes case clearly and persuasively 	
Helps plan (and revise)	<ul style="list-style-type: none"> doesn't contribute to discussion procrastinates "just tell me what to do and I'll do it" overlooks important data fails to identify or solve problems 		<ul style="list-style-type: none"> willing to take on unpopular tasks brings group to consensus looks ahead to future phases flexible but realistic outlook 	
Values diversity	<ul style="list-style-type: none"> lacking appropriate respect lacking appropriate empathy and compassion impatient with others does not listen / pay attention 		<ul style="list-style-type: none"> listens actively encourages different approaches patient with others' differences 	

III. LABOUR

Quality	Unsatisfactory	Rating	Exceptional	Comment
Execution	<ul style="list-style-type: none"> procrastinates does not plan well misses deadlines does bare minimum (or less) 		<ul style="list-style-type: none"> completes work efficiently and thoroughly incorporates feedback from team and data into work collaborates with team members thinks how the pieces fit together 	

Remember you are assessing contribution not effort, difficulty, inconvenience etc.

Unacceptable			Satisfactory			Exceptionally good		
1	2	3	4	5	6	7	8	9

Usability Engineering Project

CSCI 3160

Fall 2015 – 2016

2014-11-08 (1a)*

1 Overview

1.1 Description

For this project you will be part of a team of students that will design and implement a prototype of the user interface for a wide-ranging computer application. You must design a software interface. You may also design hardware interfaces.

In previous years, students have built systems for reading journal articles from computer screens, recipe management systems, and tools for keeping track of music collections. Your team may choose your own project (in consultation with me, your professor) *or* you may take my suggestion of a bibliography/citation management tool.

The project will consist of a set of phases. Each phase is important. Most phases will require you to submit an assignment, and will be graded separately.

All work you submit for grading must have a professional, finished appearance. When you need to submit rough drafts and handwritten records[†] they should be neatly organized. Phase assignments that are too short, rife with spelling errors or grammatically embarrassing will not receive passing grades.

1.2 Phases of Project and Schedule

In a real-world project the order of phases would likely not be so rigid, but because this is an educational exercise we are subject to different constraints than in the real-world. Below are the official due dates.

Milestone	Deadline	Weighting [‡]
User and Needs Analyses	26 Sept. (Thurs.)	8%
Task Analysis	10 Oct. (Thurs.)	20%
Design Document	24 Oct. (Thurs.)	20%
complete prototype		
Testing Strategy	07 Nov. (Thurs.)	17%
begin testing & data collection [§]		
Demo. to professor and TA	13 Nov. (Wed.)	5%
Analysis of testing	21 Nov. (Thurs.)	17%
revise prototype		
Demo. of 'final' version to class	26 & 27 Nov. (Tues. & Wed.)	7%
Final Portfolio	28 Nov. (Thurs.)	3%
Group Leader Reports		3%
Fairness Evaluation	03 Dec. (Tues.)	-50%
Project Assessment	10 Dec. (Tues.)	<i>optional</i>
Maximum <i>overall</i> bonus for appropriate innovation		+25%

Bonus is available for innovation that is appropriate to users and their needs/tasks

Additional Notes

1. Deadlines are at the beginning of class (5:35 pm Tuesdays and Thursdays, and 11:05 am on Wednesdays) on the days when the class meets, and noon on the other days. Late work will be penalized as detailed in the syllabus.
2. The class meets on Tuesdays and Thursdays between Tuesday 10 September and Tuesday 03 December. There will be some tutorials on Wednesdays in that period too.
3. A test is scheduled for Thursday 24 October.
4. The calendar (on page 19) shows the above dates.
5. The Registrar's Office will schedule the exam for sometime between 05 and 16 December.

1.3 Project Homepage

Any updates to, resources for, and announcements about the project will be available from the project homepage on the WWW at ([URL:http://www.cs.dal.ca/~jamie/course/CS/3160/Project/](http://www.cs.dal.ca/~jamie/course/CS/3160/Project/)). Be sure to check it frequently. It includes a copy of this project description.

*This project document is a revision of the January 1999 version of the Bowling Green State University Computer Science (BGSU CS) 324 course project description, which was written by J. Blustein. The BGSU CS document was based on earlier work provided by Laura Leventhal. For some details about the BGSU CS course see *Julie Barnes and Laura Leventhal; Turning the tables: introducing software engineering concepts in a user interface design course; In Proceedings of the 32nd SIGCSE Technical Symposium on Computer Science Education, (pp. 214 – 218), 2001; DOI:10.1145/364447.364587.*

[†]You will need to submit handwritten notes, etc. as part of your analysis of testing and final portfolio.

[‡]The negative weight indicates the maximum deduction; See also the grading scale in Appendix A (on page 18).

[§]You must not collect data from users without prior approval from the Ethics Authority (see p. 13).

2 Groups

'If you want to go fast, go alone. If you want to go far, go together.'
— proverb quoted by Prof. Susan Holmes

Products with significant user interface components should be developed in groups. Although many of you are not experts in UI design or the problem domain, you will benefit from group work. Being able to work in a diverse team will make you more valuable to potential employers.

2.1 Rules for Groups and Group Dynamics

1. Each group member is expected to make an equal contribution to the project. All group members will receive the same grades for the phases of the project *except* in the most exceptional circumstances.
2. The products of your group should be high-quality and I expect for the group to produce better products than would result from individual work.
3. If you submit group work for grading by e-mail then all of the group members should be sent a Cc of the e-mail message. None of the individual reports (below) are group work.
4. You will need to keep a weekly log of group activities for the final group work report (described below in §2.2.3).

※ weekly log ⇨

2.2 Peer Assessments

Each student must submit

1. one group leader report (see §2.2.1),
2. self- and peer-evaluations for *every* phase (see §2.2.2), and
3. a final fairness evaluation (see §2.2.3).

None of those reports are group work. I prefer to receive these reports by e-mail in PDF or text format, but hardcopies submitted to the TA are also acceptable. These reports will be confidential between their authors and me (the professor).

We need your peer-assessments because they are the only way I can know what is happening in your group and act to help you improve or intervene to resolve problems*.

I also use self- and peer-assessments to

- help students take more responsibility for their success and to be more active and engaged learners;
- give students a way to understand user centred design and software design more deeply;
- give students (especially senior undergraduates) more control over their work;
- produce better and larger projects than would be possible without groups;
- give students a chance to develop leadership skills; and
- develop skills that are important in the workplace.

*Sources: Schwartz/Ryerson, Holmes/Dalhousie (see page 21).

2.2.1 Group Leader Reports

The members of your group will take turns leading the group for phases of the project. You must all work together during each phase and part of the leader's responsibility will be to ensure that the work is shared equally. The group leader will also be responsible for coordinating meetings, activities, and documentation for that phase.

Where there are three members in a team, one of you will be the leader for the task analysis, another one will be a leader for the design document, and the third member will be leader for the testing strategy. There does not need to be a formal leader for the user & needs analysis. The title page of each project phase must identify the team leader (a simple way is to put an asterisk beside the name of the leader). ← title page

Where there are more than three members in a team, the others will lead for either the first demonstration or testing analysis phase. No team (for this project) should have more than five members.

Within 48 hours of completing their leadership phase the designated team leader *must* submit a teamwork report that:

1. lists all the team members and how each one contributed to the phase;
2. includes a ranking of the contributions with *no ties* (someone must have made the biggest contribution, and someone else the least);
3. shows how the leader made sure that the work was fairly divided amongst the team members.

2.2.2 Per Phase Group Work Evaluations

Within 24 hours of each phase of your project being completed you should submit a peer assessment of every member of your group (including yourself). These assessments are intended to help you and your teammates to work effectively and to alert me to potential problems that I could help you with before they become serious.

The form to use for these assessments is reproduced in the website.

Your grade for these reports will depend on the quality of your rationale. Be brief and to the point. Remember that you are assessing contributions not effort. No report should have more than one page of additional notes.

2.2.3 Final Group Work Reports aka Fairness Evaluations (*Required*)

After the final project is due all team members must submit their own group evaluation reports. Each team member will write their own report.

In the report you will tell me what you did in the project, what other members of your group did and how your team made sure that the work was divided fairly between all of you. You should keep a log of all the activities your group does each week to help you in writing the report.

The deadline is shown in §1.2 (on page 1); A few more details are in §10 (on page 18).

**The Leader and Fairness reports are mandatory.
You cannot receive a passing grade for the project without submitting both of these reports.**

Sources used for groupwork (especially peer assessment)

Susan Holmes of Dalhousie University provided excellent advice about the design of every aspect of the teamwork part of this project.

I also found the following sources particularly helpful as I developed the peer assessment of groupwork process and form. Prof. Holmes helped refine the form.

- *Improving Teaching and Learning Group Work and Group Assessment* (2004 Edition) from the University Teaching Development Centre (UTDC) at Victoria University of Wellington.

I found Appendix D (Group Member Contribution) especially helpful so I have based parts of my form on it.

- *Peer and Self Assessment of Student Work* Prepared by Michelle Schwartz, Research Associate, for the Learning & Teaching Office at Ryerson University.
 - Parts of the rationale are drawn from lists on pages 1 and 7.
 - I found the example of the *Indiana University's School of Medicine Peer/Self Assessment Program Self Assessment* form by Carolyn Hayes (which is described as being adapted from the University of Rochester School of Medicine and Dentistry 'Peer Assessment Program') so helpful that I use the assessment scale in my form and have based much of my form on it.
- *Assessment Matters: Self-Assessment and Peer Assessment Teaching Development* by Dorothy Spiller (February 2009), produced by the Teaching Development Unit at Waikato University.
- *Methods for assessing groupwork* from the University of Waterloo's Centre for Teaching Excellence at [URL:https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/developing-assignments/group-work/methods-assessing-group-work](https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/developing-assignments/group-work/methods-assessing-group-work) (undated; last accessed 2013-09-10).

I adapted a few of their examples of aspects of team functioning (e.g. 'generating ideas and solutions' and 'willingly taking on unpopular jobs') for my form.