COMP356

Web Design and Development Project

S2 Day 2015

Dept of Computing

Contents

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General Information

Unit convenor and teaching staff Steve Cassidy steve.cassidy@mq.edu.au
Credit points 3
Prerequisites 39cp including (COMP249(P) and MAS241(P))
Corequisites COMP344(P) or COMP348(P) or MAS340(P)
Co-badged status
Unit description This unit draws together what has been learnt in previous units by conducting a group-based project spanning all phases of the web development life cycle and the techniques that can be applied in each of its stages. The unit assesses and extends students' understanding and application of methods for analysis; specification and design; testing and implementation; project management and quality assurance; team skills; and verbal and written communication skills. The unit involves a substantial group project based around the development of a complete web application.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

Understand and perform the stages of the web development life-cycle and its different process models in an authentic context

Understand and make use of the basic principles of project management, teamwork, the roles and responsibilites of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

Effectively Communicate results of the software development process (in both written and oral form)

Recognise and address ethical issues when they arise based on an understanding of

professional ethics

General Assessment Information

Your final grade will be based on the sum of your marks in the individual assessment tasks. To pass the unit you must:

- gain experience and properly document your work in at least 4 areas of web development as described in the *Reflective Report* above
- take part in all required meetings with clients throughout the semester

All work submitted should be readable and presented in a business-like and professional format.

Late work will not be accepted. As you are working in a team and also are expected to perform risk management, sickness or other misadventure needs to be planned for and managed. Disruption requests will apply to individual only, not to teams.

Grading Standards

You have shown leadership in your teams and have been instrumental in the success of the projects that you have worked on. Your individual work shows insight into the web development process and you demonstrate a deep understanding of how the technology can be used to meet client needs.
You have shown excellence in one or more areas of the work you've done on your projects, reflected either in your individual work or in the results presented by your teams.
You are an effective contributor to your teams and you provide some insightful reflection in your individual work during the semester.
You have contributed appropriately to your teams during each sprint and have met the minimum requirements gaining experience in web development tasks.

Assessment Tasks

Name	Weighting	Due
Application Exercise	10%	Week 3
Reflective Journal	30%	Every two weeks
Sprint Score	40%	Every two weeks
Presentations	10%	Various
Blog Post and Reading List	10%	Various

Application Exercise

Due: **Week 3**

Weighting: **10%**

As an exercise to gain familiarity with the tools that we will use in the main projects you will take an available open source web application project, clone it into your own Version Control repository and deploy it on the web.   Assessment will be based on your completion of all parts of this task and a short written report.

On successful completion you will be able to:

- Understand and perform the stages of the web development life-cycle and its different process models in an authentic context

Reflective Journal

Due: **Every two weeks**
Weighting: **30%**

Developing a web application involves a number of steps or tasks including the following:

- Requirements gathering
- Planning
- Design
- Implementation
- Testing
- Deployment to devtest/production
- Maintenance
- User Testing/Evaluation

Each student must gain experience in at least 4 of these areas during the semester, working as part of a development team. Your experience is monitored via a reflective journal. which should also include notes about the other areas where possible based on the team experience even if the individual does not take part.

You will complete the journal regularly and submit an entry every two weeks through the semester.

On successful completion you will be able to:

- Understand and perform the stages of the web development life-cycle and its different process models in an authentic context
- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilites of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)
- Effectively Communicate results of the software development process (in both written and oral form)

- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Sprint Score

Due: **Every two weeks**
Weighting: **40%**

The development work through the semester will be run using an Agile methodology and work will be split into *sprints* lasting two weeks each. At the end of each sprint your team will demonstrate the work they have completed. The team will be scored on the quality of the work that has been done by the client and unit staff. This is a group based mark, but the mark will be moderated via a factor based on an evaluation of the contribution of each team member to the outcomes.

On successful completion you will be able to:

- Understand and perform the stages of the web development life-cycle and its different process models in an authentic context
- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilites of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

Presentations

Due: **Various**
Weighting: **10%**

During the semester you will take part in a number of presentations to clients and the class. This mark will be made up of separate marks for all of your presentations and will include components for preparation and communication in the presentations.

On successful completion you will be able to:

- Effectively Communicate results of the software development process (in both written and oral form)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Blog Post and Reading List

Due: **Various**
Weighting: **10%**

We will have a shared blog and reading list for the unit, each student must contribute one blog post and a number of relevant links to the reading list. This mark will be based on your contributions to these shared resources.

On successful completion you will be able to:

- Effectively Communicate results of the software development process (in both written and oral form)

Delivery and Resources

This unit is the capstone for the Web Design and Development Major, it is designed to bring together all of the things you've learned in the major and allow you to be part of a real-world web development environment.   The unit is project based and is designed around the idea of a small web development company working for a number of clients. We will have a number of client projects to work on during the semester and you will be given the opportunity to work on more than one project in teams with other students.   The goal is that you will experience all of the stages of web application development in these different projects.   Since this is the first offering of this unit, the projects we take on will be new to us, but at least one of them involves working with an existing deployed website. In future offerings of this unit, students will carry on your work and maintain and extend the websites you have developed.

We will use an Agile methodology to run these projects and to manage your work during the semester. Your work will be split into two-week *sprints* where you will work towards a set of defined outcomes and deliver and demonstrate what you have done to the client. You may be assigned to different projects in different sprints if there is work that you are well suited for or if you need to gain experience with some part of the development process. You will be involved in all aspects of the development process including managing the teams that are assigned to the work.

The class will meet every Friday for three hours in the E6A119 lab. It is very important that you attend this session **every week** as it will be where you carry out planning and do your reporting of progress each week. This time will also be used to discuss technical issues and if necessary there will be some 'tutorial' presentations on relevant topics. You will also need to schedule time each week to work with your team on project development and to meet with your clients to work out requirements and make presentations of your progress. If you are not able to make these meetings then you should not enrol in this unit. If you do not contribute to your team you will find it hard to pass the unit as the assessment is based on your gaining the relevant experiences throughout the project. Since we are working for external clients you are also in a responsible position representing the University and the Department of Computing.

The assessment in the unit is based partly on the quality of the work you do on the projects (a group based mark) but also on a number of things that you will do individually to reflect on the work you are doing and your contribution to some resources that will benefit the whole class. The majority of the marks are individual, so you should not be 'pulled down' by a poor team member and you will not be 'carried' by the rest of your team if you don't contribute.

Finally, this is the first offering of this unit and so there will be teething problems as we work out how to run these projects. If changes to the way that assessment works is needed through the semester this will be done in full consultation with students and will not disadvantage you if at all possible.

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy.html

Grading Policy http://mq.edu.au/policy/docs/grading/policy.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Grievance Management Policy http://mq.edu.au/policy/docs/grievance_management/policy.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the Learning and Teaching Category of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide

appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://informatics.mq.edu.au/help/.

When using the University's IT, you must adhere to the Acceptable Use Policy. The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Understand and perform the stages of the web development life-cycle and its different process models in an authentic context
- Effectively Communicate results of the software development process (in both written and oral form)

Assessment tasks

- Application Exercise
- Reflective Journal
- Sprint Score
- Presentations
- Blog Post and Reading List

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary

solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Understand and perform the stages of the web development life-cycle and its different process models in an authentic context
- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilites of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

Assessment tasks

- Application Exercise
- Reflective Journal
- Sprint Score

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcome

- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Assessment tasks

- Reflective Journal
- Presentations

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Understand and perform the stages of the web development life-cycle and its different process models in an authentic context
- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilites of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)
- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Assessment tasks

- Application Exercise
- Reflective Journal
- Sprint Score
- Presentations

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcome

- Effectively Communicate results of the software development process (in both written and oral form)

Assessment tasks

- Reflective Journal
- Presentations
- Blog Post and Reading List

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- Understand and make use of the basic principles of project management, teamwork, the roles and responsibilites of the project manager and appreciate the importance of working closely with the project's customer and the delivered system's end-user(s)

- Recognise and address ethical issues when they arise based on an understanding of professional ethics

Assessment tasks

- Reflective Journal

- Sprint Score

- Presentations