

FIT3047 2022 Industry Experience Week 1

Gail Bourne
ME!

Najib Al Chamaa
ME!



I wish to acknowledge the people of the Kulin Nations, on whose land Monash University operates. I pay my respects to their Elders, past, present and emerging. Attendees may be based elsewhere, so we pay our respects to Traditional Owners of the land from wherever you may be joining us.



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Welcome to FIT3047

- A capstone unit where you take theory and put it to practice
- At the end of this seminar you should know:
 - All about the unit
 - How we have changed it based on your feedback
 - Why Agile



Who We Are

Gail Bourne, Najib Al Chamaa, and Bill Gong

And lots of very clever studio mentors with a lot of experience.

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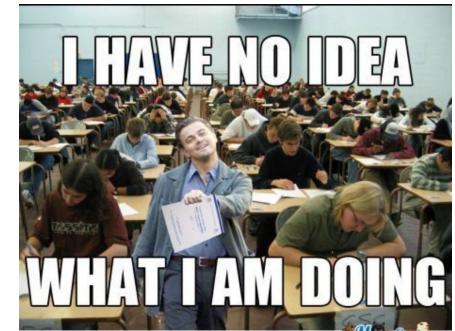
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Unit Description

So you think...
What is this unit meant to do?

What are the outcomes and what do you expect to achieve.

Tell us.



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At the completion of this unit, students should be able to:

1. Explain how IT applications are developed, including all aspects of the development process;
2. Explain the roles and responsibilities of clients, system users, management and developers in a development project;
3. Apply, in a practical setting, aspects of the theoretical work covered in their course;
4. Develop an application using a prescribed methodology, conducting all activities associated with the development methodology;
5. Work with clients or client representatives, communicating effectively with them to meet their requirements;
6. Operate effectively as a member of a development team;
7. Evaluate, assess and communicate both personal and team progress and learning, thus engaging in meaningful reflective practice

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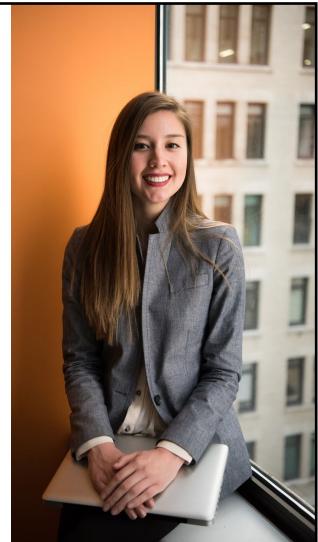
Relationship between 3047 and 3048

3047 is a practice run for 3048

- **FIT 3047**
 - Product owner, still a real project, a real product owner
We provide feedback on your deliverables so that you can improve and grade those
Then
- **FIT3048**
 - Work with an authentic business client (now that you are experts)

Both have

- Same deliverables
- agile teams
- complete in 12-14 weeks
- Virtual Teams



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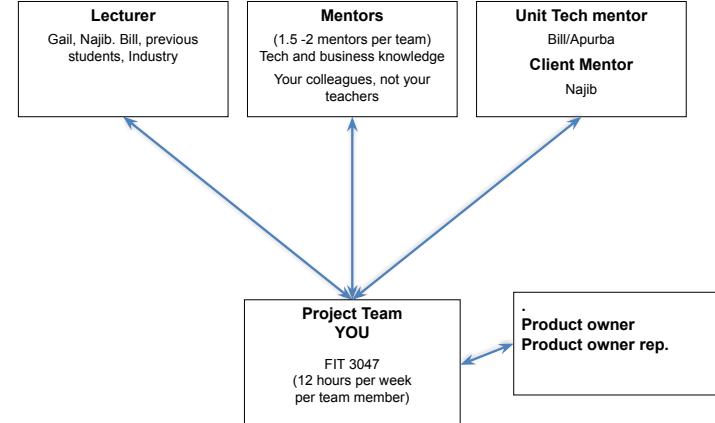
When do I have to attend studios / seminars/ lectures/ tutorials

- **Seminars:** 1 hour on campus and live streamed Thursday, 5.00pm, after your studio
 - Dealing with issues relevant to projects - bringing you up to speed
 - Preparing you for your career
 - Not the stuff that you know (?)
- **Studios:**
 - Mondays: 2-5 pm and Thursdays 4pm
 - You will do your work (as a team), have workshops, have team meetings / standups, have meetings with us
 - Need to put in, on average, your 12 hours a week each



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Industry Experience Teaching Structure



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What we expect of you

- Very high standard of work
- Work hard
- Proactive
- Eager to learn
- Professional
- Communicate



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To do well...

We have put you into teams and no, you may not choose or change them (**they are not random!**)
you will work on your

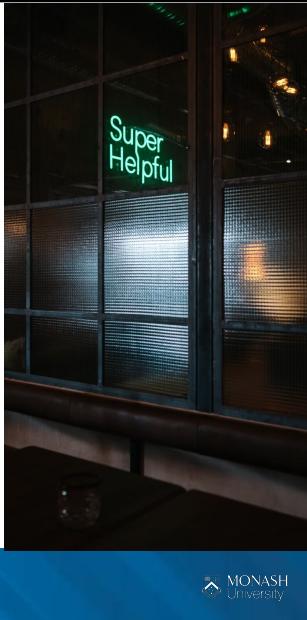
- People skills
- Time management
- Problem solving and management
- Communication skills
- "IT" skills



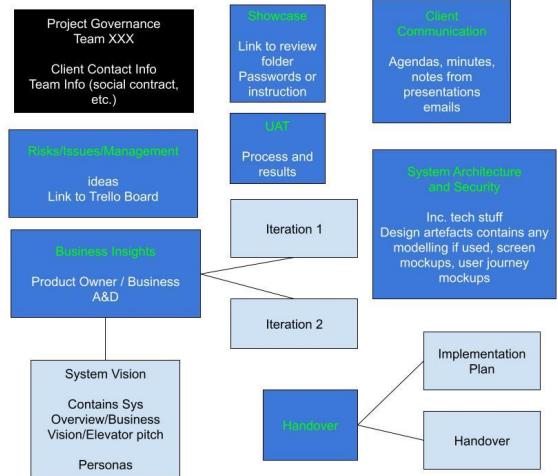
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Facilities and resources

- Unit Website **MOODLE!**
 - Forum announcements
 - Forum discussions
- Facilities
 - Zoom, via your monash log in, and on campus (**BYOD**)
 - Meet product owner using Zoom,



Project Governance Portfolio



System development framework

- Development approach – iterative / agile
- Project Governance folder
- Mock-up software (prototypes)
- PM and issues tracking - Trello
- Development server: IE cPanel server
- Version control – git + GitLab
- Technology, Cake-PhP



How do I get graded Assessment – FIT3047 / FIT3048

Your assessment is made up of 2 components:

Component 1: Quality of project deliverables (group) 75%

- Team members get same mark, then
 - Team members are rewarded appropriately for contributions so will vary based on personal contribution, peer reviews and participation in studios
- This variation can be + or - 100% of the group mark (Can't exceed the total mark for the component)

Component 2: Reflection and Professionalism (individual) 25%

This mark is derived from the reflective diaries (60%), and client /studio mentor assessment concerning participation and professionalism including and participation in the lectures. (40%)

Personal Contribution - participation and professionalism

Peer feedback

- Equitable and effective contribution across all deliverable

Mentor feedback

- In-class group discussion re: progress, teamwork and participation
- Participation in lectures
- Student interviews
- Willingness to take on feedback
- Homework completed
- Professionalism within studios



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Reflective Diary

- You are all required to write a fortnightly reflective diary (via Moodle)
- All entries are private to yourself, mentors, and lecturers
- Reflective diaries will be reviewed by mentors
- Your reflective diary entry must be completed ON TIME by Sunday 10.00pm each week.
- **Late entries will get a 0 mark.**

NOTE: This is worth 15% of your final mark. It is the most common reason for grade variation in a team.

Read the guidelines on Moodle



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Professionalism

Professionalism is used to describe the acceptable behavior that employees exhibit in the workplace

So

Professionalism in studios and outside studios - means what?

What should it mean?

Flux by Team Team number first please
2 mins

flux.qa/3CAKSW



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Peer Reviews, after major deliverables

Approximately weeks 4, 8, 12

Be honest!

We will support you if we see you struggling.



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Lecture Topic Readings and Homework

- To do this week?
- To do next week, before the studios

There will be readings and viewings that go with lecture, to be completed before your Monday studio,

given to you at the lecture - a quiz given - marks

AND

Pre studio work (which is homework), which is already on Moodle and will be checked in the studios - studio participation - marks

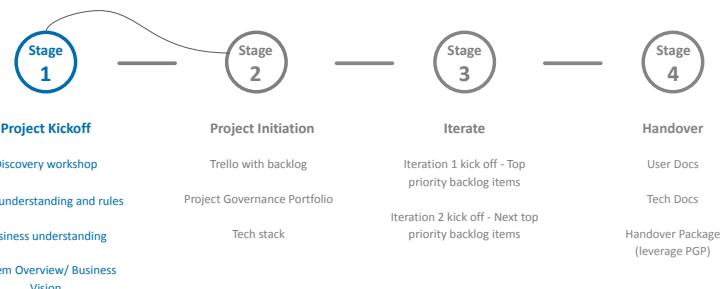
Where can you find out?

WHERE, not WHAT

Tell us now, via the quiz



Roadmap: The Way Through Plan for project



So Why Agile?



SDLC

Problems arose for many systems
Often immediate problems as soon as implemented

Why do you think?



Participatory Development Approaches/Practices

- Evolutionary development/
- Iterative development/
- participative development
 - All the same for this unit
 - RAD, Agile (both participative approaches)

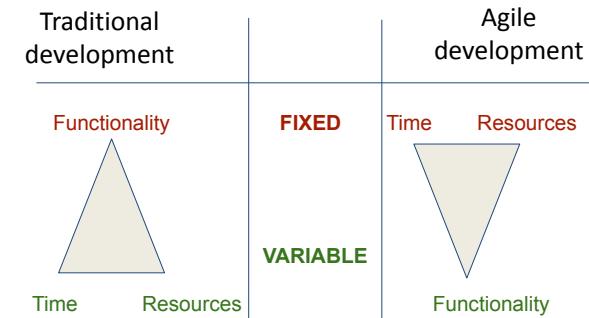
A way of showing our users on the way through, before the end

Using something to use/try out to see if it is right, rather than looking at documentation



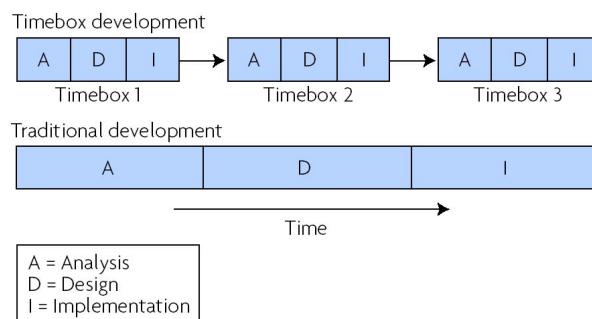
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Traditional Development AND RAD/AGILE



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Timebox Development vs Traditional Development



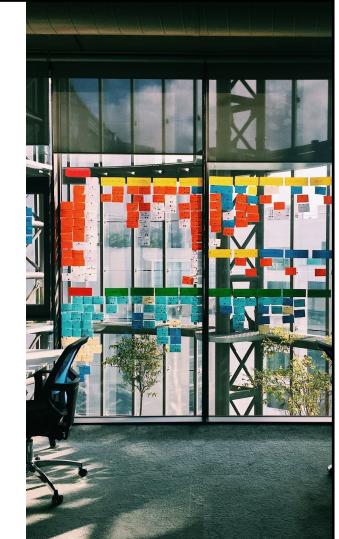
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Agile Development

Evolutionary approach and philosophy.

Philosophy of Agile manifesto (Beck et al., 2001)

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan



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AGILE Philosophy

Word Agile means able to move quickly and easily.

- Teamwork, self-organization and accountability
- Reflection of each iteration (retrospective)
 - Keep good things,
 - get rid of bad things
- Lean
- Feedback to users, change if doesn't fit
- Deliver early and often
- Be prepared to fail, it's how you try new things then fix
- Improve process (from retrospective) and product (from client)



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Technology, CakePHP based on MVC architecture

MVC - The Model-View-Controller (MVC) framework or architecture

Separates an application into three main logical components: **the model, the view, and the controller**. Each of these handle specific development aspects of an application.

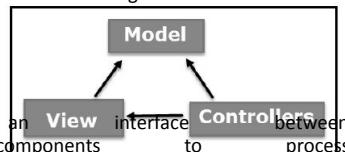
The **Model** component corresponds to all the data-related logic .

The **View** component is used for all the UI logic of the application.

The **Controller**

Controllers act as an interface between Model and View components to process all the business logic and incoming requests, manipulate data using the Model component and interact with the Views to render the final output.

For example, the Customer controller will handle all the interactions and inputs from the Customer View and update the database using the Customer Model.



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SCRUM - a methodology proposed and supported by the Agile Alliance

Consists of (among many other things):

1. **A time-boxed, iterative development approach (a Sprint)** "sprints" short, 2 weeks
2. **Progress Visible:** Backlog of Requirements new and changed requirements are placed on the list and estimated - then to do, doing, done. Uses whiteboards
3. **Stand-Ups** Progress checked, difficulties fixed
4. **Retrospectives** (about becoming more effective)
5. **Continuous delivery** (creating software that is always ready to release)

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Technology, Why CakePHP

WHY NOT?

- CakePHP is an open-source framework built with PHP and based on MVC architecture. It helps to build PHP web applications easy and simply with less code.
- CakePHP is by far, one of the quickest web development platforms.
- CakePHP allows developers to gain enhanced control over the database and SQL queries.
- It helps users to develop robust web applications without losing their environment flexibility
- Facilitates search Engine Friendly URLs
- Provide features like input validation and sanitization tools which make the app secure.
- Templating with familiar PHP syntax

The E Resource Repository Development resources for CakePHP and InnoDB
The E Resource Repository is a collection of resources for open source and enterprise technology and software. These are provided through donations and contributions from individuals and organizations around the world.
13 July 2014
All content
This page is part of the E Resource Repository. If you have questions, feel free to ask our community, you can make contributions, or even contribute to the repository. We are always looking for new content to add to the repository. If you have any questions or comments, please don't hesitate to contact us.
You can also contribute to the repository by reporting bugs or fixing them. We welcome any kind of contribution, whether it's a patch, a bug report, or a feature request. We are here to help you get your hands dirty!



We (teaching team and online resources) are here to help you *get your hands dirty!*
<https://lms.monash.edu/course/view.php?id=118014>

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The IE Experience

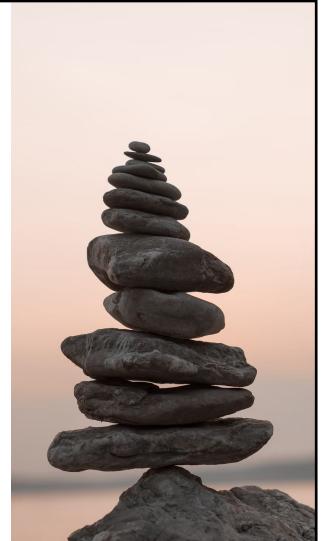
- This unit is unlike any others you have studied!
- This unit is a real chance at experiencing work
- You will gain the best insight to yourself and your skills
- Serious consideration of your objectives assists you in setting realistic expectations of yourself
- We expect you to challenge yourself
 - Acquire new skills
 - Step outside your comfort zone
- There is more to be gained than just a grade
 - but it requires input and commitment from you



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And Finally...

- You are not students, but **IT professionals**
 - We will treat you accordingly
 - Real interactions, real imperatives
- You can do this stuff!
 - Confidence is something you will gain
- Get plenty of sleep, work/life balance, eat lots of vegetables.



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And don't forget to have fun!

These are not vegetables!



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