

# Final Year Projects

Joining your team and contacting your client

# Expectations

## Expectations on *you*

### Concrete:

Attend lectures and events (BBQ, 2x oral presentation events, poster evening)  
Meet with your team, client, supervisor and techs  
Work *at least* 300 hours each (9 *productive* hours per week)  
Keep time sheets  
Work during the breaks  
Monitor the Learn site and read the forum postings  
Behave professionally

### Abstract:

Think creatively and critically  
Take positive action  
Understand your client's needs, wants, and context (business environment)  
Strive to solve the problem  
Communicate  
Work constructively together: be a good team-mate

Your client has put up a substantial fee and expects productive, intelligent work  
This is not business-as-usual, this is business development

## Expectations on *your client*

Provide a clear goal *but not a clear path to that goal*  
Provide relevant information  
Be available 1 hr per week to discuss (may be teleconference)  
Pay for agreed expenses (components, travel, etc.)

## Expectations on *your supervisor*

Be available to meet 1 hr per week  
Listen & suggest  
Provide written and oral feedback on reports and performance  
Assess your work (with moderator)

## Expectations on *technicians*

Observe, listen, suggest  
Help you find resources  
Help you build and test- but not do it for you  
You can approach any technician in Mech. Engg. or Electrical Engg.

# Professional behaviour includes:

Possessing or obtaining the required skills and knowledge

Taking responsibility for tasks

Honesty

Being on time

Considering enough aspects or implications

Communicating clearly and thoroughly

Raising concerns in a timely and clear manner

Working in a safe manner

Keeping your workspace tidy

Respecting other people's time, money and resources

Striving for accuracy and clarity

Managing expectations

Clear, rational thinking

Not letting emotions govern your interactions

Using the appropriate methods and tools

# Confidentiality agreement

Read, complete and give to me.

Legally binding

“I will not disclose or otherwise publish the Confidential Information without the prior written consent of the sponsor.”

# Memorandum of Understanding

A document which has already been signed by your client and by a representative of the University.

There is a standard wording- extracts below.

Some clients have asked for variations on the standard wording.

“It is understood that neither the university, the students, nor the staff shall in any way assume any liability for any damages whatsoever which may be incurred or sought in connection with the use of the project deliverables or results or any activity on the supporter’s site. The supporter agrees that the project is not the work of professional engineers, and that any use of the project deliverables should be after full review and certification by appropriately qualified and registered professional engineers. If the students visit the site of the supporter, it is the responsibility of the supporter to safeguard them as contractors, and provide them with any necessary health and safety briefing and personal protective equipment. Students are covered by university travel insurance when on university travel.”

“In the course of the project our staff provide weekly supervision and the students are supported by 80 hours of technical and machinist work on average per team. Operating costs (including, but not limited to, travel, parts and consumables) are additional to the above-mentioned gift and a GST invoice for these will be sent to you in December, and will become the property of the supporter on payment in full. A budget for these additional costs will be presented to your before April 1<sup>st</sup> and your approval will be sought before any expenditure is incurred.”

# Memorandum of Understanding- contd.

“The team and the department will not disclose any confidential information without your express written authorization.”

“All inventions, discoveries, and improvements, which are made as a result of the project work, shall be the property of «Company» and any background information relating to such matters shall be made available to you upon request.”

“The department will cooperate in protecting your interests in and to any inventions, and shall further provide you with information necessary to perfect any claim you may have with respect to the ownership of such rights, including providing you with an assignment of all the university’s rights in and to any such invention. We do request that establishment of rights be completed by **Projects Day, 15th October 2016**, if at all possible, so that the students may freely present their accomplishments. Final project reports can be held in confidence for two years.”

“The staff reserves the right to publish papers and reports concerning the projects program in accordance with college publication policies. No such reports or papers will be published without your prior written approval within one year following the completion and delivery of the final report. After that year, you will be given an opportunity to review and comment on any proposed publication.”

# Contacting your sponsor: the first email

To: Your sponsor

CC: Your supervisor and your own email addresses

Dear Mr/Mrs/Ms/Dr/Prof/Rev/General.... <last name>

We hope this finds you well.

We have been selected as the team for your final year project entitled <name>.

We are <your names>

We would like to contact you to learn more about the background to the project and your requirements. You can reach us at this email address or at <phone number>.

We hope to see you at the BBQ on the 4<sup>th</sup> March.

Warm regards,  
<your names>

# Etiquette

Address: Mr/Ms <last name>: no first names until they invite you to do otherwise

Be on time (not early, not late)

Dress decently:

- Formal meetings (BBQ, oral presentations): dress pants and shirt/pants or skirt, or equivalent
  - Ties, suits not required but not prohibited
- Informal meetings: tidy: no offensive slogans
- Site visits: appropriate to environment

Be clean

Listen: absorb information and understand the business reasons for doing this project

Ask good questions: to prompt further information from your client

Take notes



# What to ask?

What do they want to see at the end of the project?

What do they do now?

How is it made?

What does it cost/what does it sell for?

What is most difficult about <process, manufacture, supply>?

Who are they competing with?

What other solutions have you tried?

Are they aware of reports, literature, data which might be useful?

What do they want to know?

What are the constraints? (cost, regulations, availability of parts....)

What intellectual property (IP: patents etc.) is held by the client, and by others?

What are the key specifications, or numbers that specify required performance?

What are the common failure modes?

This list is to give you ideas- it is not exhaustive

# Your log book

An aid to memory:

- Record ideas, facts, to-dos
- Take it to all meetings
- Have it with you when working on the project
- Work front to back- organise by date

Only you have to read it, but you will show it to others as evidence of your work

It may become evidence of ownership of intellectual property (IP)

Use it to:

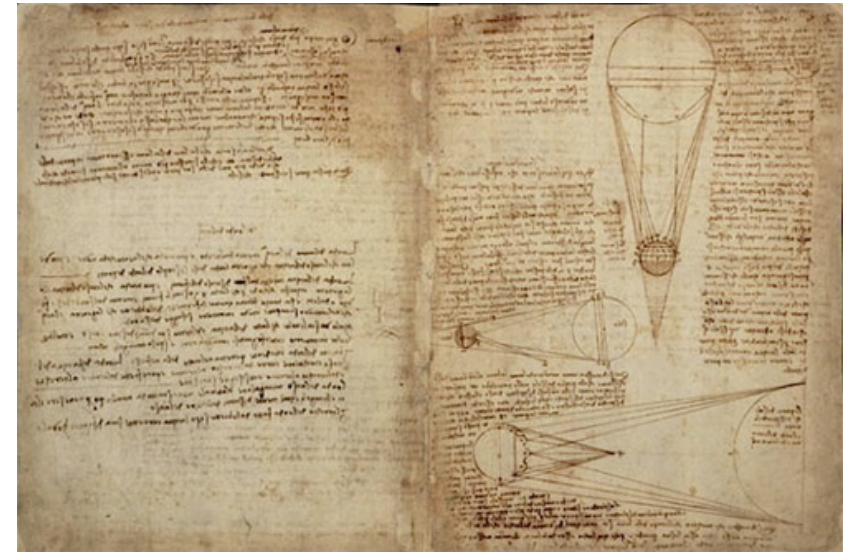
- Write down actions
- Write down facts
- Draw pictures for people
- Sketch and think
- Draw flow charts and diagrams to organise your thoughts

It must be:

- Big enough to draw in
- Small enough that you carry it

It can be electronic but you must produce at Individual Reviews

**Never** arrive at a meeting without something to record on.



“Codex Leicester”, a notebook belonging to Leonardo DaVinci. 72 pages. Sold to Bill Gates for US\$30.8M in 1994



# Timesheets

You will need to present these at your individual reviews

Knowing where your time goes is essential for planning

Keep them with you and update them as you go

## ENME408 Timesheet

Name:	Mark Jeremy
Week or date range:	Week beginning 22 <sup>nd</sup> Feb 2016

Work-stream or WBS activity code	Description of work undertaken	Outcomes [if any]	Hours spent on this activity	Comment
Course prep	Brief writing	All briefs complete	6	
" "	Photocopying, printing & comms.	Briefs & cont. agree. - marks.	8	Make sure enough toner next year
" "	Allocating students to teams	Allocations complete	16	
" "	Lecture prep	Slides complete	2	
Lectures		3 briefings Delivered + 1 lecture	6	
TOTAL FOR THE PERIOD			38	

# Your grades are determined by your approach

This course is not about memorising facts or learning set methods

There are many ways to succeed- and to fail

Be flexible- be creative- find tasks that use the things you are good at

A grade behaviour	Doesn't wait to be asked: works out what to do Works hard and goes beyond the brief Solves problems
B grade behaviour	Does what asked Works hard and meets the brief
Fail grade behaviour	Stops when unexpected problems turn up Misses meetings Doesn't take ownership of any part of the project

# We back you with resources

Computing and software: CAD, FEA, CFD, circuit design etc....

Staff knowledge (academics and technicians)

Workshops, machine tools, 3D printers, consumables

Prototyping gear

Testing facilities

Lab and meeting space

Guidance and advice

If you want something, ask! Even if you don't know whether we have it.

Consider whether staff in other departments might be able to help

We will set you up to succeed!

*Start solving problems, start inventing!*