

Week 1 Workshop

BEB100 INTRODUCING PROFESSIONAL LEARNING

M.S.Pamulu (2007)



Your Tutor

- **M.S. Pamulu** ([Sapri](#))
- email: m.pamulu@qut.edu.au
- #O-401 BEE Research Centre – QUT GP

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Today Workshop



- **ACTIVITY 1 – 30 Minutes**

- ☐ to help us get a better idea of who we are

- **ACTIVITY 2 – 15 Minutes**

- ☐ to expand on meanings of the words

- **ACTIVITY 3 – 30 Minutes**

- ☐ to identify what were the 5 key skills/knowledge amongst the disciplines in the job advertisement

- **ACTIVITY 4 – 15 Minutes**

- ☐ to get the students starting to think about the project

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Please have your seat



- Row 1 for all those born on or after 1988
- Row 2 for all those born between 1987 and 1982
- Row 3 for any remaining students

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Activity 1

Who are we all here?

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Who are we all here?



- Everyone fills in the blanks on their own piece of paper.
- Read out what you wrote on your piece of paper.

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Who are we all here? (cont.)

- Hello, my name is SAPRI
- I'm majoring in PROJECT MANAGEMENT
- My hometown is JAKARTA (ID)
- ...

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Do you have a group?

- Three equal groups:
 - ☐ Group 1 – Design
 - ☐ Group 2 – Engineering
 - ☐ Group 3 – Urban Development



- Who is your group spokesperson?

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Activity 2

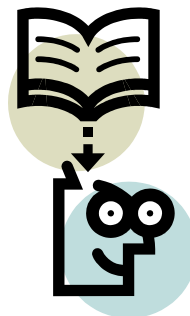
Meanings of the words

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Meanings of the words

■ Feel free to expand on these meanings:

- ANALYSE
- DISCUSS
- EXPLAIN
- JUSTIFY
- OUTLINE
- REVIEW
- STATE
- SUMMARISE



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Meanings of the words (*Cont.*)

- **Analyse** – determine the constituent parts; examine critically.
- **Discuss** – exchange opinions, debate, argue.
- **Explain** – make clear or intelligible, interpret, elucidate, give details of, account for.
- **Justify** – prove right, true or innocent; vindicate; excuse.
- **Outline** – to sketch out the boundaries of; to summarise.
- **Review** – survey or inspect; write a critique of an article; look back on; reconsider.
- **State** – express in words.
- **Summarise** – state the chief points of something; present briefly and concisely.

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Tips



- Browse to <http://www.google.com>
- Type “define: word” in the dialog box
- Definitions on the web

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5 Steps to better problem solving

1. Identify and clarify the problem
2. Gather information
3. Evaluate the evidence
4. Consider alternatives and implications
5. Choose and implement the best alternative

■ Ref. Mary Ellen Guffey, *Business Communication: Process and Product*, 2E, 1996.

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Step 1

- **Identify and clarify the problem.** Your first task is recognizing that a problem exists. Some problems are big and unmistakable, such as failure of an air-freight delivery service to get packages to customers on time. Other problems may be continuing annoyances, such as regularly running out of toner for an office copy machine. The first step in reaching a solution is pinpointing the problem area.

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Step 2

- **Gather information.** Learn more about the problem situation. Look for possible causes and solutions. This step may mean checking files, calling suppliers, or brainstorming with fellow workers. For example, the air-freight delivery service would investigate the tracking systems of the commercial airlines carrying its packages to determine what went wrong.

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Step 3

- **Evaluate the evidence.** Where did the information come from? Does it represent various points of view? What biases could be expected from each source? How accurate is the information gathered? Is it fact or opinion? For example, it is a fact that packages are missing; it is an opinion that they are merely lost and will turn up eventually.

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Step 4

- **Consider alternatives and implications.** Draw conclusions from the gathered evidence and pose solutions. Then, weigh the advantages and disadvantages of each alternative. What are the costs, benefits, and consequences? What are the obstacles, and how can they be handled? Most important, what solution best serves your goals and those of your organization? Here's where your creativity is especially important.

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Step 5

- **Choose and implement the best alternative.** Select an alternative and put it into action. Then, follow through on your decision by monitoring the results of implementing your plan. The freight company decided to give its unhappy customers free delivery service to make up for the lost packages and downtime. On the job you would want to continue observing and adjusting the solution to ensure its effectiveness over time

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Activity 3

Job Advertisement

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Job Advertisement



■ Step 1

- ☐ Each group then separates the set they received and distributes the ads amongst themselves. There may need to be 2 or 3 students as a mini-group looking at a given ad.
- ☐ Everyone looking at a given ad agrees together. What are the 3 or 4 key skills and/or knowledge required for that job position and then one of them writes these on the back of the piece of paper (that the ad is on).

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Job Advertisement (*cont.*)

■ Step 2

- Each group then discusses among all their members the key skills and/or knowledge they've identified for each job ad in their set.
- From this discussion you should come to an agreement together on what are the 5 key skills and/or knowledge that are common across all the job ads in their set.

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Job Advertisement (*cont.*)

■ Step 3

- Spokesperson who will report back to the whole class the following.
 - Briefly, and for each of the jobs their group looked at, give a brief description of what the ads say about what a professional in each discipline actually does;
 - What are the 5 key skills/knowledge that common amongst the disciplines in that job set

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Tips



- Browse to <http://www.google.com>
- Type “define: job” in the dialog box
- What’s Google say about the job or profession?

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Weekly Quizzes



- Week 1 Quiz (available 26 February to 12 March 2007)
- Overview of the Professions within the Built Environment
- Which best describes the role of an ...?

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Architect



- draws plans;
- advises clients on how a building might meet their needs;
- a project management role in the design and construction of all projects;
- values house and land for banks;
- *designs and documents working drawings and drafts a specification for a building to meet design intent.*

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Valuer



- values any property of value eg coins, stamps, land, buildings;
- calculates the cost to construct a building plus the builder's profit;
- *values land and buildings*

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Quantity Surveyor



- surveys land;
- surveys the quantity of cut and fill of land;
- *prepares a bill of quantities for tender purposes;*
- places survey pegs;
- carries out building set-outs and check surveys;
- geotechnical services

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Geotechnical Engineer



- designs structural components of buildings;
- designs electrical/mechanical engineering systems;
- designs all aspects of engineering plans - structural, hydraulics, mechanical, electrical;
- carries out horticultural engineering functions;
- *designs building footings and excavations*

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Structural Engineer



- fabricates and welds the steel components of the building;
- analyses borehole data to figure out bearing capacity of soil;
- designs all engineering for the building - civil, mechanical, electrical, hydraulics; designs,
- *designs, documents and certifies structural components of a building;*
- designs architectural working drawings

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Avionics Engineer



- flies planes;
- *designs, specifies and documents electronics for aircraft ;*
- maintains and documents repairs to all aircraft components;
- designs and implements satellite launchers;
- builds aviaries

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Town Planner



- audits all buildings to ensure the use is approved by council;
- prepares working drawings in accordance with the town plan;
- *approves plans for the use of land and buildings;*
- Provides free advice and copies of the town plan to the public and land developers to encourage development

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Land Surveyor



- prepares a bill of quantities; carries out boreholes and analyses soil profiles;
- *places survey pegs, does building set-outs and check surveys;*
- calculates soil cut and fill quantities for costing purposes;

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Interior Designer

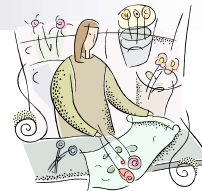


- supervises building construction works to ensure the furnishings and interior are aesthetically pleasing;
- colour co-ordinates; manufactures furnishings, fixtures and fittings for interiors;
- *designs and colour co-ordinates furnishings, fixtures and fittings within any type of building*

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Landscape Architect



- constructs landscaping within and external to a building eg atriums, gardens;
- *designs and documents a landscape plan comprising planting schedule, external works and surface water drainage;*
- designs furniture, fixtures and fittings for landscaping areas; waters and maintains gardens

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Mechanical Engineer



- engine mechanic;
- installs air conditioning and air extraction systems in buildings;
- *designs machinery, air conditioning and other mechanical systems in buildings*

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Electrical Engineer



- fits lights;
- *designs, documents, specifies and manages electrical and communication systems and devices;*
- installs electrical wiring within the walls of a building and connects in lights and power outlets;
- constructs underground and overhead power systems in the street

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Computer Systems Engineer



- installs software and software systems on computers;
- *design, installation, repair and maintenance of computer hardware, software and associated equipment.*
- fixes computer hardware;

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Medical Engineer

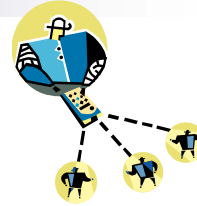


- A doctor;
- manager of a doctor's surgery;
- *designs and supervises the installation of medical equipment;*
- installs machines in a medical facility; fixes computer hardware and software in a medical surgery

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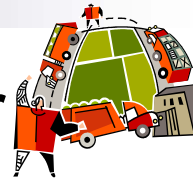
Informechatronics (robotics) Engineer



- Designs leggo toys;
- *design, installation, repair and maintenance of robotics hardware, software and associated equipment;*
- designs computer wiring;

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Environmental Engineer



- Prepares reports, conference papers and journal articles on matters pertaining to global warming;
- works in a consulting engineer's practice or for the environmental protection authority or similar; monitors and tests air, noise and water for pollution;
- Prepares environmental impact statements;
- *all/most of the above*

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Construction Manager



- Designs and constructs all work on site;
- *co-ordinates labour and materials on site to work in a safe manner to the approved building plans;*
- manages costs; maintains the building after construction on a service

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Property Economics



- Real estate agent selling property; property manager collecting rent and fixing problems for tenants;
- *advises on what's best to build and what will sell best;*
- advises on the cost to build property

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Civil Engineer



- *designs stormwater mains, sewers, water mains, roads, footpaths, culverts, and bridges;*
- designs pipework within buildings; builds houses;
- designs, certifies, and supervises all components of a building.

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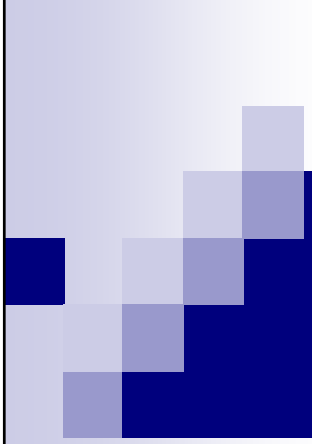
Week 1 Quiz



- Online
<https://olt.qut.edu.au/bee/BEB100/gen/index.cfm>
- The quiz is open for 2 weeks for the students to complete it
- 19 Questions

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Activity 4

Individual Assignment

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Individual Assignment

- Individual Report
- Due by 5 pm Monday 2 April

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Assignment Objective

- Select vacant residential land;
- Select your clients and their; demographics, needs and preferences
- Undertake research to appropriately select land/building to suit your client's needs;
- Write up this part of the development as an individual report

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My Dream Development



- QUTAC is a newly formed government funded non-profit entity that designs, constructs and sells affordable energy-efficient residential housing for domestic and international QUT students and their families under a housing affordability scheme.
- QUTAC's aim is to select appropriate land and design and construct student-centered house designs to meet multicultural diversity and intergenerational needs of students and their families.

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The Objective of the Assignment

- Select vacant residential land;
- Select your client and their demographics, needs and preferences;
- Undertake research to appropriately select land/building to suit your client's needs;
- Write up this part of development as an individual report.

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The Project Requirements

- Report should includes a client profile, land selection brief, vacant allotment photograph or [Google earth extract](#), provide a full description of the features of the land including the topography, utilities, locality infrastructure and other considerations, problems, recommendations, etc.

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The Project Clients

- Example of clients and their demographics, requirements and preferences include:
 - A four generation family. A single parent university student with a full time nanny, a mother-in law who is wheelchair reliant and grandmother needing daily nursing care
 - Family of 2 adults who are QUT student with disabled child
 - Single student renting rooms to 3 other students. Student has a car-parts ebay business requiring a large shed.

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NB

- Identification of the client's needs will be covered as a part of the week 2 workshop

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Report Requirements

- Report format as shown on final page of the brief.
- A maximum 25 pages of text and no more than 5,000 words is permitted. This word limit excludes long quotes, footnotes, citation, table, contents page, list of figures and tables, appendices and the like.
- All pages of the assignment and all plans, diagrams, photographs and the like must be spirally bound into your report.
- Plans, diagrams, maps or table exceeding normal page size should be folded. Such materials may be located and bound in the back of the report in the appendices.

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Report Assessment

- The report will be assessed on the following issues:
 - Identification of the client's needs and how your design meets those needs;
 - The breadth of your literature research, measure in terms of the number and quality of appropriate and relevant references you cite and discuss;
 - The quality of your research, measured in terms of the range of topics drawn from your reading, etc.;
 - The quality of your report, measured in terms of its format, conciseness, presentation, etc.

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Deadline

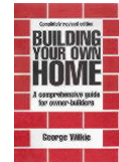


- Individual Report on literature related to the project due by 5pm Monday 2 April

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Reference



- **Building Your Own Home: A Comprehensive Guide for Owner-builders (Third Edition)**

- ☐ George Wilkie
- ☐ Publisher: New Holland
- ☐ Publication date: 2003
- ☐ ISBN: 1864367474

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Reference



- Australian Domestic Construction Manual - Queensland Edition
 - ISBN: 0-7262-8546-3
 - Amendments: Update 2 September 1995
 - First published as HB 60.1-1992.

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Example: Land for Sale

- 52 DERBY STREET HIGHGATE HILL
- 20 Lots remain in 'Highgate Park Estate' - a rare inner city land release selling now. Block sizes range from 300m² - 832m². This block is 456m². Prices from \$370,000 - \$575,000. Build your dream home in this desirable location just minutes from the CBD. Seize this opportunity and create your ideal lifestyle in the thriving inner south cultural precinct. Highgate Hill is a quiet & friendly neighbourhood & residents enjoy close proximity to great markets, restaurants, shopping, cafes & entertainment, Southbank Parklands, Queensland Performing Arts Complex, Museum & Science Centre, Art galleries, State Library, Conservatorium and College of Art. The nearby ferry provides access to the University of Queensland to the west and the Queensland University of Technology in the CBD, while convenient access to the South-East freeway allows easy commuting to the greater Brisbane area.



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Example: Land for Sale

- **6 SANKEY STREET
HIGHGATE HILL**
- Rarely available in Highgate Hill: an 809m² vacant elevated allotment (with 20m frontage) zoned Low Medium Residential that offers the flexibility to build a large home or multiple residential development as units or as a townhouse site. The land is located in a quiet location and handy to all amenities.



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Useful Links



- [Your Home Design Guide](#)
- **Technical Manual Guide**
 - Australia's guide to environmentally sustainable
 - <http://www.greenhouse.gov.au/yourhome/technical/index.htm>
 - Case study: 7.4c House - Brisbane
 - <http://www.greenhouse.gov.au/yourhome/technical/fs74c.htm>
- **Customer Guide**
 - <http://www.greenhouse.gov.au/yourhome/consumer/index.htm>

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Useful Links



- Property Council of Australia

- <http://propertycouncil.gravitymax.com.au/nat>

- **Boulevard of Broken Dreams: The future of housing affordability in Australia (2007)**
 - **Only 1 in 14 expect Generation Ys to own home – survey (2007)**
 - **Reasons to be fearful?: Residential Development Costs Benchmarking Study (2006)**

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Workshop Review



- Important points covered

- Week-1 Quiz: Professions
 - Individual Assignment: Project Brief

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Thanks

- **Question:**

- ☐ email to m.pamulu@qut.edu.au for further questions

- **Next workshop:**

- ☐ 2-4 pm Monday 05 March 07 (Z-607)
- ☐ 5-7 pm Thursday 08 March 07 (M-303)