

## 6: Project Activities – FYP Proposal

MENG311 English V:  
Technical Writing Practice I

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### FYP Activities

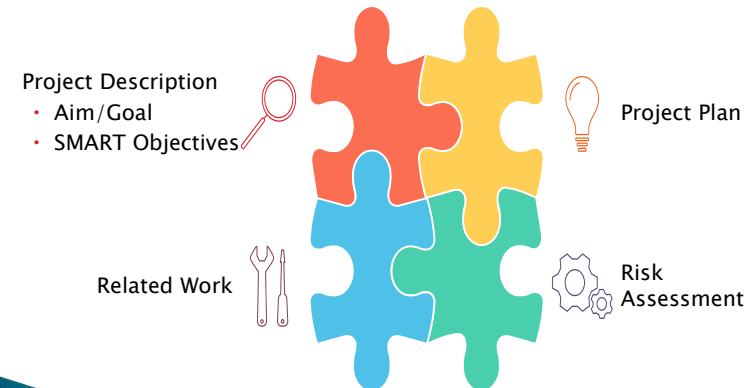
1. Developing Project Proposal with project description
2. Following Objectives
3. Data collection, analysis and presenting your information
4. Drawing conclusion and identifying future work
5. Presenting and defending your work orally
6. Developing the final version of your report

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## Activity 1 – Project Proposal

- ▶ What needs to be included in your project proposal?
  - **Project goal/aim:** a short description of your initial ideas about what you would like to do, and how you intend to achieve the overall goal of the project.
  - **Objectives:** precise statements on how to reach the goal/aim (the end result) of the project.
- ▶ Developing a problem description includes activities such as searching for information and reading published papers.
- ▶ The project proposal is submitted for quality control.

## FYP Proposal



## Project Proposal

- ▶ You need to provide an acceptable proposal, or your project will not even start.
- ▶ At MPI, you need to prepare a proposal once you select your supervisor and the topic.
- ▶ It serves as a contract between you, your Programme and your project supervisor – but don't expect it to be used against you if you achieve more than you actually intended to do!
- ▶ In many cases, projects can and do change direction as they proceed; as you become more aware of the topic area and the problem which you are investigating.



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## Project Proposal

- ▶ Introduction to the subject area
- ▶ Current research in the field
- ▶ Identify a gap
- ▶ Identify how your work fills the gap
- ▶ Identify risks and solutions



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## Project Proposal: Introduction to the subject area

- ▶ **Introduction to the subject area**
  - This provides the reader with an understanding of the field in which your project lies and an idea of where and how your project fits into this field.
  - This aspect sets your project into an overall *context* and will show that it is bound within a recognized field – not an idea that you’ve had that makes no sense and has no recognizable foundation.



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## Project Proposal: Current research in the field

- ▶ **Current research in the field**
  - This emphasizes that your project is not based in a field that is out-of-date and that you are aware of current issues within that field of study.
  - It also implies that you have done some preliminary research into the topic area and are not approaching your project with little background or motivation.



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## Project Proposal: Identify a gap

### ► Identify a gap

- You should be able to identify some aspect of the field that requires further investigation or study.
- There is no point in repeating the work of others (unless you are evaluating their approaches) and this component emphasizes that the field is not exhausted and is worthy of further investigation.



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## Project Proposal: Identify how your work fills the gap

### ► Identify how your work fills the gap

- Having identified a gap in the field, your proposal should show how your project intends to fill this gap, or at least go some way to investigating it further.
- This will emphasize the contribution your project will make.



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## Project Proposal: Identify risks and solutions

### ► Identify risks and solutions

- It is also useful in a project proposal to highlight any risks (risk assessment) your project might face, and ways you envisage dealing with them.
- If you do not identify potential risks to your project, your proposal's supervisor and assessor will not know whether you have considered the risks.

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## (1) Project Description

- This section gives a summary of the work to be done.

### *1.1 Define the project problem.*

- *Explain why it is important to solve the problem.*
- *Define project goals / aims*

### *1.2 Write objectives to be achieved.*

### *1.3 State the expected results/outcomes*

### *1.4 Summarize difficulties/challenges*

#### 1 Project Description

This section gives a summary of the work to be done. Here is a suggested list of content.

- Define the project problem
- Explain why it is important to solve the problem. (Relevancy)
- Write objectives to be achieved.
- State the expected results / outcomes
- Summarize difficulties / challenges

#### 2 Summary of Related Work and Key References

This section gives a summary of related work to this project. Key references (e.g. reference books) should also be stated. Use proper citation like [1] to the reference section at the end of this proposal.

#### 3 Project Work Plan

This section gives a tentative schedule of how the project work is to be accomplished. Key deliverables (such as key outputs, reports or presentations) should be stated in the schedule. Refer to the FYP calendar for the tentative deadline and dates for reports and presentations.

#### 4 Risk Assessment

This section describes the key risks of your project. You are to determine (either quantitatively or qualitatively) the risks related to a concrete situation and a recognized threat to your project. Contingency plans should also be stated.

For example, if you work on a web crawler project in a specific website, there are possibilities that the crawler is forbidden by the website when they discover your intention. If you work on a hardware-related project, there are possibilities that the hardware cannot be delivered on time. Such kind of threats that potentially delay or even fail your project should be pre-cautioned and stated here.

COMP490 Final Year Project Proposal template

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## Project Description:

### 1.1 Define the problem

- ▶ Explain why it is important to solve the problem.
- ▶ Example:
  - When the tourists prepare to visit Macau, they often do a lot of research in some websites, traveling guides, or through the information kiosk or applications to obtain the information. As tourists often need to use various ways to obtain travel information about many points-of-interest in Macau, they may rather like to have a complete and direct answer for their travel-related questions. In this project, an online travel information platform will be developed.

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## Project Description:

### 1.1 Define the problem



- ▶ Your project should be defined at two levels.
  - At the top level you define your project's aim or goal.
  - Then, you have to define the objectives.
- ▶ Examples of typical goals / aims for computing projects are:
  - To design a methodology for GUI development of technical courseware material;
  - To investigate and produce an evaluation of fourth generation languages for database development

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## Project Description:

### 1.1 Define the problem– Aim /Goal

- ▶ To succeed with your project, you first have to define the aim of the project clearly.
- ▶ This is necessary because it clarifies in your own mind exactly what it is you are aiming to achieve.
- ▶ It also helps you to communicate with your supervisor, assessor and other people whom you want to talk with about your project.



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## Project Description:

### 1.1 Define the problem– Aim /Goal

- ▶ Suppose that you are doing a project related to electronic commerce.
- ▶ Below are three different examples of how the first draft of your aim may look. You may have to decide on one of them or all? – scope
  - Aim 1: Develop an infrastructure for electronic commerce
  - Aim 2: Investigate security issues for electronic commerce
  - Aim 3: Investigate the use of electronic commerce for product marketing



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## Refine Aim/Goal



- ▶ Aim 1: Develop an infrastructure for electronic commerce
  - Aim 1: Develop a security infrastructure for electronic commerce based on XML.
- ▶ Aim 2: Investigate security issues for electronic commerce
  - Aim 2: Investigate security issues in negotiation protocols for electronic commerce
- ▶ Aim 3: Investigate the use of electronic commerce for product marketing
  - Aim 3: Investigate the usage of electronic commerce for product marketing by small and medium sized companies

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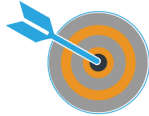
## Project Description: 1.1 Define the problem– Aim /Goal

- ▶ In order to convince the reader that it is worthwhile to pursue this aim, you need to outline the motivation underpinning the aim.
- ▶ Using literature to support the aim is an efficient way of strengthening your arguments.
- ▶ Get to the bones of your chosen subject area, read background material, and the latest research reports in order to establish your own understanding of the core concepts and interpretation of what the state of the art is.



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## Project Description: 1.2 Objectives



- ▶ After defining your project's aim, you should continue to define your project in terms of its objectives.
- ▶ This project has the following objectives:
  1. Objective 1
  2. Objective 2
  3. Objective 3

### Project's Aim:

- Develop and evaluate an Artificial Neural Network to predict stock market indices.

### Project's Objectives:

Develop a suitable artificial neural network model.  
Identify and collect suitable data for analyses and evaluation.  
Evaluate the model using appropriate statistical techniques.

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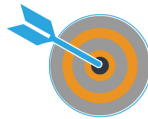
## Goals Vs. Objectives: Aren't They The Same Thing?

- ▶ No. Goals and objectives serve different purposes.
- ▶ Goal is a high level target.
  - They are general intentions with broad meaning.
  - It is the final result that you want to achieve.
- ▶ Objective is the detailed outline of the big picture of the project.
  - Precise intentions that are concrete.
  - Help directing you to the end result (goal) of the project.
  - A simple and straightforward process for a team to track their progress.

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## Goals Vs. Objectives – Example

- ▶ Goal 1: Do a road trip from Zhuhai to Shanghai.
  - Then your objectives are the tiny steps you take in between your beginning and endpoint.
  - So you might plan out your routes, make arrangements for the nights you want to stay in hotels, and look at tourist attractions along the way.
- ▶ Goal 2: I want to lose weight.
  - Follow Keto diet.
  - Do 30 minutes of cardio exercise every day.



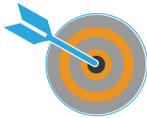
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## Goals Vs. Objectives – Example



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## Why are goals and objectives important?



- ▶ **Goals and objectives** give you the ability to monitor yourself and how much progress you're making.
- ▶ They provide an **important** check that keeps you from becoming blinded by your bias.
- ▶ After setting a general **goal**, specific **objectives** are then established that guide activities and provide performance metrics to guide everyone and provide feedback.
- ▶ A well written objective is crucial because it can affect every step of the project life cycle.

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## SMART Goals & Objectives

### SPECIFIC

Objectives should clearly state what you are expected to achieve, using action verbs to describe what has to be done. For example:

*Not specific:* Encourage more people to join the Sports Centre

*Specific:* Increase membership of the Sports Centre

*Not specific:* Conduct research

*Specific:* Formulate plans for research on topic X

### MEASURABLE

Objectives should include a quality and/or quantity reference so that you can measure whether or not you have achieved them. For example:

*Not measurable:* Increase membership of the Sports Centre

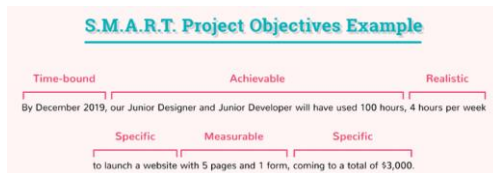
*Measurable:* Increase membership of the Sports Centre by 10%

*Not measurable:* Formulate plans for research on topic X

*Measurable:* Formulate plans for research on topic X and submit grant application to X Research Council.

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## SMART Goals & Objectives – Example



- ▶ **Instead of:** I want to finish more projects on budget.
- ▶ **Try:** I will get involved in the estimation process, track budget daily, and communicate budget concerns to my teams in our daily meeting to get my next 3 projects to finish within a +/- 10% range of the original estimate.
- ▶ **Instead of:** Improve the site's user experience.
- ▶ **Try:** We will reduce the number of clicks it takes for a user to reach the highest traffic page that the majority of our website users regularly visit (the member directory) from any point on the site to 2 clicks or less by the end of our design phase on June 1st.

<https://thedigitalprojectmanager.com/project-objectives/>

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## Project Description: 1.2 Objectives – SMART Objectives

1. Specific – consider who, what, when where, why and how in developing the objective

General Objective: Save enough money to buy a car.

Specific Objective: Save \$500 a month for 12 months until I can buy a car by December 2022.

2. Measurable – include a numeric or descriptive measurement

Sample Objective: Gain more clients for my consulting business by participating in a networking group.

SMART Objective: Gain 2 clients each quarter for my consulting business by participating in a monthly networking group.

3. Achievable – consider the resources needed and set a realistic objective

Sample Objective: Write a function in my website to offer after-sale service to my clients by September 30th.

<The objective is specific and measurable and is pretty SMART if you can really do it by the deadline. If not, then the deadline might need to be extended.>

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## Project Description:

### 1.2 Objectives – SMART Objectives

#### 4. Relevant – make sure the objective is consistent with the project

Sample Objective: Write a fiction novel about my experience helping to build houses in Costa Rica.

<It sounds like a very interesting book and possibly a worthy personal objective. However, this objective may not be relevant to your current project. >

#### 5. Time-bound – set a realistic deadline.

Sample Objective: Create a website to sell jewelry from my store.  
<Of course, this goal needs a deadline. Otherwise you may never get around to creating it.>

SMART Objective: Create a website to sell jewelry from my store by December 31st. Utilize a website development company to create the site and payment interface.

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## References

- ▶ Berndtsson, M., Hansson, J., Olsson, B., Lundell, B. (2008), Thesis Projects, A Guide for Students in Computer Science and Information Systems, Second Edition, Springer Publishing.
- ▶ Christian W. Dawson (2015), Projects in Computing and Information Systems, A Student's Guide, Third Edition, Pearson Education Limited.

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