



# Experience-based Learning Through Site Inventory And Analysis In Teaching Environmental Planning

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## Abstract

Site Inventory and Analysis is a form of experiential learning where students can obtain hands-on knowledge regarding the processes involved in preliminary stages of environmental planning. The students were tasked with scouting and proposing a recreational space that instils the principles of sustainable design, having this key theme in mind, this project instils a thought-process that looks at development from the lens of environmental sustainability. The students carried-out desktop analysis, site survey and were tasked with designing a proposed recreational space. The following method of teaching provides a more holistic learning experience for the students outside of theory-based learning; it applies both formal and informal learning. The students involved in the following project applied experience-based learning through Reflection, Revaluation and Reconstruction, which are the three-key process for an effective and efficient learning experience. Thus, Site Inventory and Analysis in Environmental Planning provides an opportunity for active and life-long learning; this instils the problem-solving and critical-thinking skillsets individually and as a group that students can carry-forward in professional settings.

**Keywords:** *Experiential Learning; Site Survey; Teaching Environmental Planning*

**To Explore The  
Effectiveness Of Site  
Inventory And Analysis  
As A Holistic Learning  
Tool To Administer  
Experiential Learning  
When Teaching  
Environmental Planning**

- **EMG5104 Environmental Planning and Management**
- **70 (coursework) + 30 (Final)**
- **Master by Coursework (Weekend Class)**

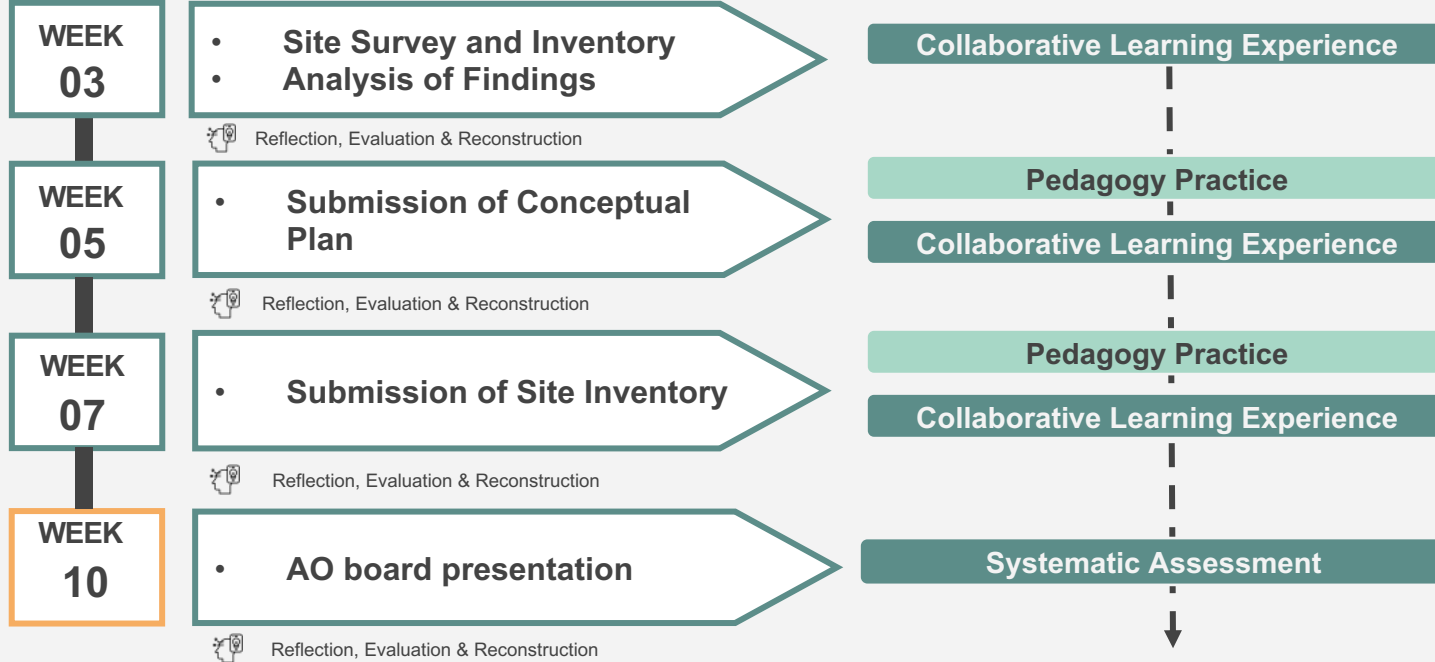
#### Learning Outcomes :

Students shall be able to :

1. Develop detail concepts, component, structure and function of complex environmental management. (C5, CS)
2. Formulate controlling strategies, conservation and suitable environmental management. (A4, EM)
3. **Elucidate development issues and the impacts on the environment; and strategies of land use development control. (P4, CTPS)**



# Planning



## Learning tools



Collaborative Learning Experience



Systematic Assessment



Pedagogy Practice

## Learning Experience

### Reflection

Application of intellect, feelings and senses to meet the objective of the task at hand

### Evaluation

Observation and collection of information

### Reconstruction

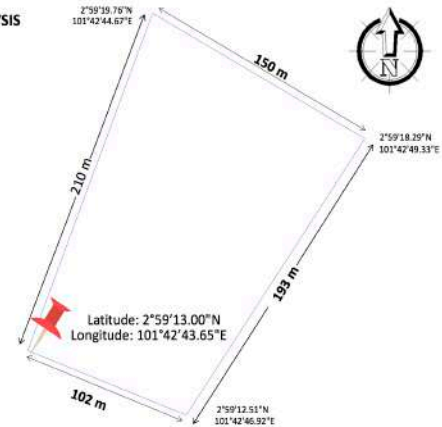
Application of knowledge from experience and theory-informed practice to design



## Mini Project 2: SITE INVENTORY AND ANALYSIS Earth Observation Technique

### Task :

1. Conduct a preliminary assessment of the proposed site using earth observation technique based on information provided.
2. Go to the site. Conduct a necessary primary data collection.
3. Prepare an A3 Site Inventory and Analysis (Plan) board presentation.
4. Proposed a suitable development plan and prepare conceptual plan in A3 size.
5. Prepare an A4 report of concept paper/development proposal report (DPR)



### Application & Techniques



### Visual Appeal



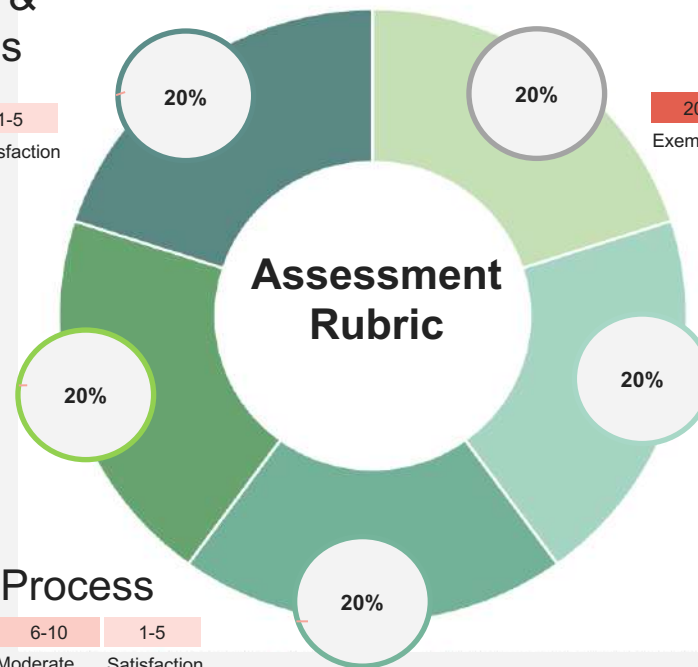
### Workmanship



### Development of design concept



### Creative Process





# Assessment

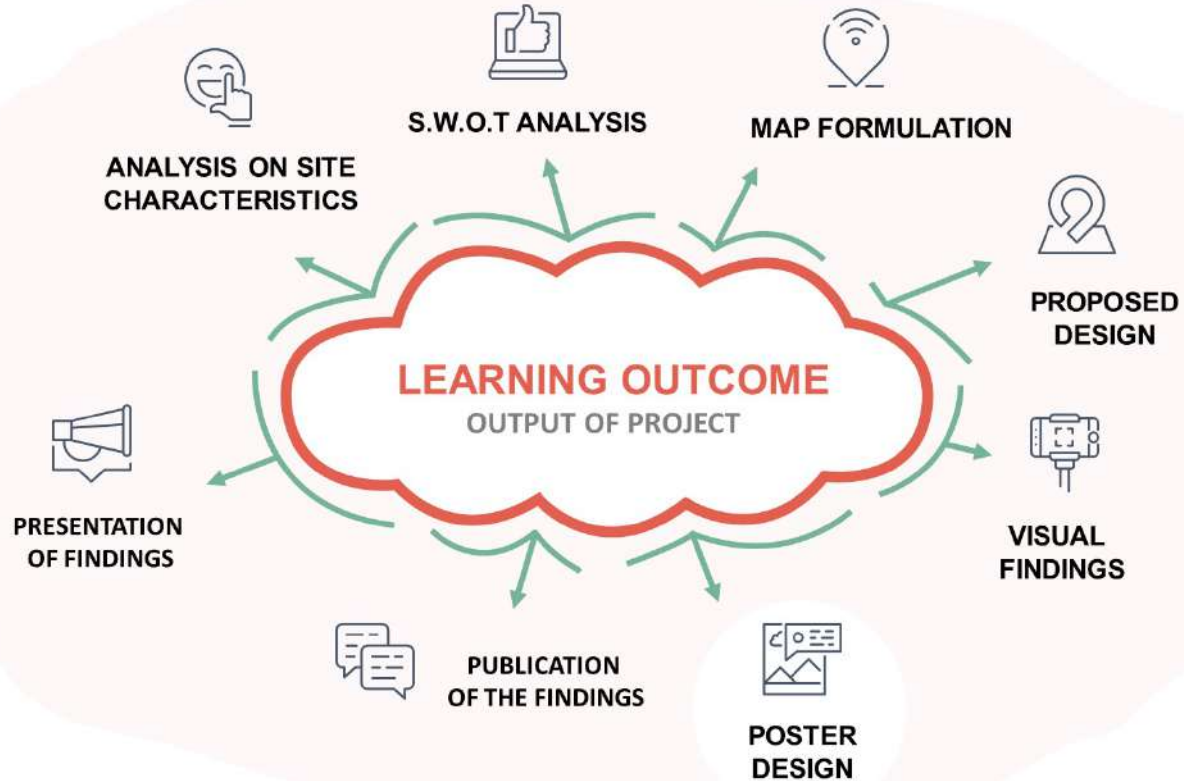
[EMG5104 Environmental Planning] Mini Project

Name: \_\_\_\_\_

## MINI PROJECT SCORING RUBRIC

ASPECT	ASSESSMENT RUBRIC				
	20-16	15-11	6-10	1-5	Mark
	Exemplary	Good	Moderate	Satisfaction	
<b>Application &amp; Techniques</b>	Demonstrates qualities & characteristics of various software/media, technique & processes.  At least 90% of mapping software/engine search application.	Demonstrates good qualities & characteristics of various software/media, technique & processes.  At least 80% of mapping software/engine search.	Demonstrates some qualities & characteristics of various software/media, technique & processes  At least 75% of mapping software/engine search application.	Lacks demonstration of qualities & characteristics of various software/media, technique & processes  Below 50% of mapping software/engine search application.	
<b>Workmanship</b>	Artwork reflects deliberate control having good workmanship (Good composition, font, layout, colors)	Artwork reflects deliberate control having good workmanship (Good composition, font, layout, colors)	Artwork reflects adequate deliberate control having good workmanship. (Appropriate composition, font, layout, colors)	Artwork appears to be work in progress with little or no control having good workmanship. (Poor composition, font, layout, colors)	
<b>Creative process</b>	Express original idea and insightful perspectives with an appropriate amount of details of analysis and synthesis	Express original ideas with good details of pre-analysis and synthesis	Express original ideas but has few details of analysis and synthesis	Lack of original ideas and has few details of analysis and synthesis	
<b>Neatness and clear design concept</b>	Completed presentation board is exceptionally neat. Site findings are clearly interpreted the design concept.	Completed presentation board is good and neat. Pre-Site findings are clearly interpreted with synthesis.	Completed presentation board is neat, with some parts less neat. Adequate interpretation of site findings.	Completed presentation board is more messy than neat. Site findings poorly interpreted the overall presentation board.	
<b>Visual Appeal</b>	There are no errors in spelling, grammar and punctuation. Information/graphic/map is clear and concise. Visually appealing/engaging.	There are some errors in spelling, grammar and punctuation. Information/graphic/map is clear and concise. Visually appealing/engaging.	There are some errors in spelling, grammar and punctuation. Information/graphic/map is a bit chaos and compact in layout. Significant visual appeal.	There are many errors in spelling, grammar and punctuation. Too much information was contained on many layout/slides/poster/report. Minimal effort made to make information/graphic/map/report appealing or too much going on.	
					<b>Total</b> /100

Comments:



# Explore

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**i-plan**

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- Zoning**  
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- Committed**  
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# Input Lecture



## Publication In Journal of Design Ideals

## Map Formulation

DESIGN IDEALS VOL. 2 ISSUE 2, 2020

# 01

### PROPOSED DEVELOPMENT OF ECO-PARK AT UNIVERSITI PUTRA MALAYSIA (UPM)

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**ABSTRACT**  
The following paper propoed puts forward a proposal for an Eco-Park in Universiti Putra Malaysia (UPM), a higher educational institute located in the state of Selangor in Malaysia. The site has excellent connectivity, with access to a major highway and close to a public commuting line. It is also close to a major city (i.e. Kuala Lumpur) and other growing townships. The natural features present on the site, a stretch of river and a secondary forest. The opportunity for the development of the Eco-park is, it can be an alternative form of a urban recreational park that is easily accessible by students and the public. Furthermore, it provides a scenic view for the public commuting through the area. Presently, a Mass Transit Line (MRT) is being constructed close to the UPM site, potential landscaping can be achieved from the development of the Eco Park as a means to strike a balance for the clearing of the area in the MRT site. The vegetation and water bodies in the park will be able to improve the ecosystem services in the proposed location.  
**Keywords:** Nature, Recreation, Urban Park, Neighbourhood Park, Natural Features  
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**PROJECT INTRODUCTION**  
Ecological Park for Eco-Park are large, connected landscapes that possess high nature conservation and environmental protection value (Rusli, 2016). The paper proposes an eco-park with an educational nature through a survey approach. The objective of conducting site survey through the planning approach is to find distribution in existing landscape with the aim and to monitor any activity that might disturb biodiversity and ecosystem processes and function sustainability (Mokhammad, 2017). The purpose of the project is to create a space for rest and recreation while preserving and sustaining the natural features that are present in the proposed site. The master plan consists of landscaping the natural features present in the site.

**METHODOLOGY**  
The proposed project was carried out using site survey through a mix of desktop analysis by using mapping softwares (Google Earth and QGIS) and through field survey for a proposed Eco-Park in Universiti Putra Malaysia (UPM). The potential for the proposed site was surveyed based on the land use change, hydrological characteristics, topography and scenic views. The proposed design for the Eco-park respect to the zoning of the site based on residential, buffer, conservation, recreation and riparian zones. Firstly, a Strength, Weakness, Opportunity and Threat (SWOT) analysis is employed as a result of the desktop analysis and field survey.

**RESEARCH FINDINGS**  
The project paper presents findings on the characteristic of the proposed site.

#### 1) LANDUSE CHARACTERISTIC OF PROPOSED SITE


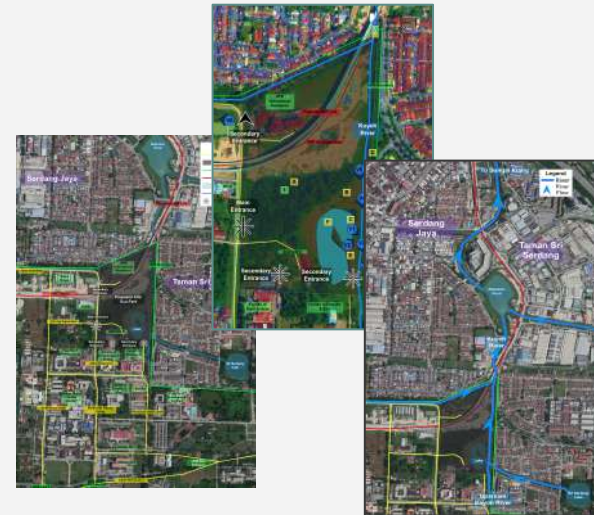
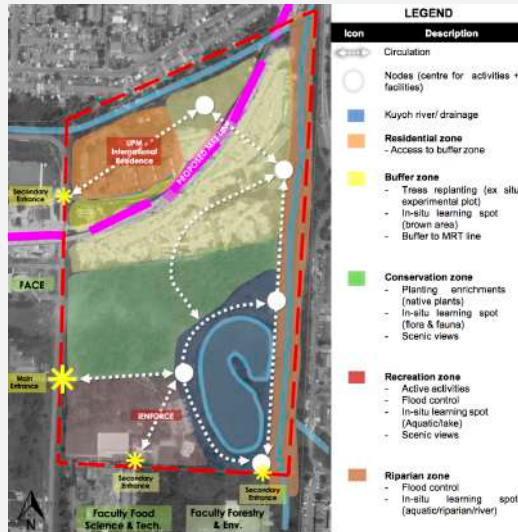


Figure 1. Land use Map for northern part of UPM (D'Arif Razaqwan (Universiti Putra Malaysia, 2007)

LEGEND	LAND USE CHARACTERISTIC	LEGEND	LAND USE CHARACTERISTIC
Residential	Secondary Forest	Open	Water
Industrial	Secondary Forest	Secondary Forest	Park
Commercial	Secondary Forest	Secondary Forest	Open Urban Forest
Government	Secondary Forest	Secondary Forest	Reserve
Religious	Secondary Forest	Secondary Forest	Secondary Forest
Public	Secondary Forest	Secondary Forest	Secondary Forest
Education	Secondary Forest	Secondary Forest	Secondary Forest
Health	Secondary Forest	Secondary Forest	Secondary Forest
Recreation	Secondary Forest	Secondary Forest	Secondary Forest
Transportation	Secondary Forest	Secondary Forest	Secondary Forest
Other	Secondary Forest	Secondary Forest	Secondary Forest



## Proposed Recreational Space



## Virtual Presentation





# Poster Design

## SITE INVENTORY & ANALYSIS

ENVIRONMENT CONSERVATION PARK AT UNIVERSITY PUTRA MALAYSIA , SERDANG

EMGS104-1: PERANCANGAN DAN PENGURUSAN ALAM SEKITAR (ENVIRONMENTAL PLANNING AND MANAGEMENT)

### Site Background

**Key Place: Sealing Selangor**

- Environment Conservation Park is located at Jalan Sepacaya and south of Faculty of Environmental Studies, University Putra Malaysia, Serdang, Selangor.
- Site area is 35.4 acres (19.9 hectares)

### Site History

### View

View from Site

View to Site

### Access, Existing & Neighboring Building

- UPM International Building
- Family, Education and Child Research Center
- Access through Eco Forensic Research Center
- Environmental Forensic Research Center
- Faculty of Food Science and Technology
- Kolejagama at Jalan 18/79
- Quater
- Access to the site (Peraturan W.A.)
- Housing at Jalan 18/99
- Flat at Jalan 18/28
- Faculty of Environmental Studies

- Boundary
- Existing Building
- Vegetation
- Proposed Structure
- Water
- Open Area
- Open Area
- Open Area

#Khatir, Mohamad Anuar, 0532213 #Zulfariz, Ahmad, 0534466 #Baidi, Abdul Latif, 0532218 #Hafizriz, binil ABD Ghani, 0534468 #Hafizriz, Saifu, 0532761 #Muhammad Faizal, bin Mohamad Noor, 0533248

## SITE INVENTORY & ANALYSIS

ENVIRONMENT CONSERVATION PARK AT UNIVERSITY PUTRA MALAYSIA , SERDANG

EMGS104-1: PERANCANGAN DAN PENGURUSAN ALAM SEKITAR (ENVIRONMENTAL PLANNING AND MANAGEMENT)

### Water Body & Drainage System

There is an existing pond in the site area. The drainage system is not clear. The drainage system is not clear. The drainage system is not clear.

### Microclimate

Temperature: ...  
Humidity: ...  
Wind Speed: ...

### Topography

The area is flat with a slight slope. The topography is flat with a slight slope. The topography is flat with a slight slope.

### Site Restriction

Vegetation: ...  
Restriction: ...

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## SITE INVENTORY & ANALYSIS

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EMGS104-1: PERANCANGAN DAN PENGURUSAN ALAM SEKITAR (ENVIRONMENTAL PLANNING AND MANAGEMENT)

### Vegetation

There are various types of vegetation in the site area. The vegetation is diverse. The vegetation is diverse.

### Ecology

There are various types of ecology in the site area. The ecology is diverse. The ecology is diverse.

### Features

There are various types of features in the site area. The features are diverse. The features are diverse.

### Legal Requirement

There are various types of legal requirements in the site area. The legal requirements are diverse. The legal requirements are diverse.

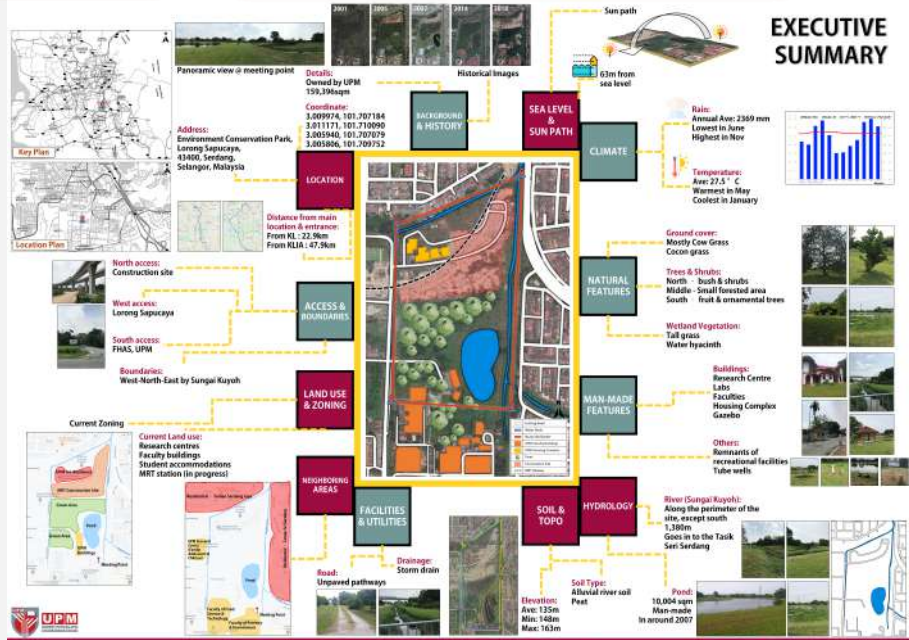
### SWOT Analysis

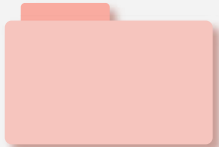
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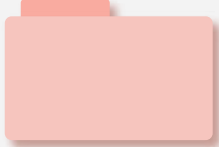


# Poster Design

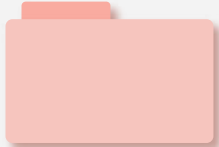




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