# TIF21-32-42

## Capstone Design Project 1

### Proyek Perancangan Teknologi Informasi 1

## BASIC INFORMATION

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|---|---|
| **Course Credit** | 2 / 100 minutes per Week2 / 100 minutes per Week |
| **Course Type** | RequiredRequired |
| **Course Classification** | Engineering TopicsEngineering Topics |
| **Prerequisites** | Junior Projects |

## STUDENT AND LEARNING OUTCOMES

### Covered Student Outcomes

Engineering Design (c)Engineering Design (c)

Multidisciplinary Teamwork (h)Multidisciplinary Teamwork (h)

Development of Engineering Solution (b)Development of Engineering Solution (b)

### Learning Outcomes

**LO1** Students are able to identify general problems as complex engineering problems that allow for open ended solutions

**LO2** Students are able to evaluate feasible solutions based on engineering processes and standards

**LO3** Students are able to design and allocate resources (human, facilities, financial, etc.) to support the selected solution

## COURSE DESCRIPTION

Capstone Design Project 1 is aimed to give experience for the 3rd students to define a problem, propose and formulate solution with specifications to solve the problem. The solution should fall within the information engineering area (i.e., not interdisciplinary area, see Proyek Perancangan Teknologi Informasi

for complex interdisciplinary engineering problems). In order to perform the project well, series of assignments in the laboratories are compulsory for all students.

## TOPICS

1. Problem identification

2. Evaluation of feasible solutions

3. Design and allocation of resources

## REFERENCES

[1] J. Abarca, A.J. Bedard, D.W. Carlson, L.E. Carlson, J. Hertzberg, B. Louie, J. Milford, R. Reitsma, T. L.Schwartz and J.F. Sullivan, "Introductory Engineering Design: A Projects-Based Approach," Third Edition.
[2] Alan D. Wilcox, Engineering Design for Electrical Engineers, 1st Edition, Pearson