# 99-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	能源科技	Serial No. / ID	1541 / MAI3016
Dept.	機械與自動化工程學系	School System / Class	大學日間部3年5班
Lecturer	謝其源	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	No
Time / Place	(—)56 / H445 ( <u>—</u> )6 / H445	Language	Chinese

#### Introduction

A. Da-Yeh University, Department of Mechanical and Automation Engineering education goals:

#### **Education Goal 1**

Imparting knowledge: education students to apply mathematics, science and engineering principles to solve mechanical and automation engineering. Students should have the learning outcomes:

- 1.1 Graduates should have the ability to analyze and design systems, and familiar with the principles of mechanics, electrical and mechanical theory and application integration, and automation systems expertise.
- 1.2 Graduates should have the necessary mechanical engineering and applied mathematics and physics knowledge.
- 1.3 Graduates should have the use of computers in mechanical and automation engineering capabilities.

### **Education Goal 2**

Technical training: emphasis on both theory and practice, education students with the implementation of the experimental and the ability to verify the theory. Students should have the learning outcomes:

- 2.1 Graduates should have the design, planning and conduct experiments, interpret data, identify problems and seek solutions to the capacity of both theory and practice to achieve the educational goals.
- 2.2 Graduates should have the data collection and finishing ability.
- 2.3 Graduates should have a written and oral report on the implementation of capacity.

#### **Education Goal 3**

Thinking Innovation: to train students with the ability of independent thinking and innovation, c r e a t e ivity and quality to become the concept of corporate professionals. Students should have the learning outcomes:

- 3.1 drill through the operation and implementation, training students to think independently analyze and solve problems.
- 3.2 equip students with the analysis and design innovation, and having mechanical and automation engineering to solve problems of basic skills.
- 3.3 Special research and through the practice of industry-university cooperation, c r e a t e ivity and enterprise to cultivate the love of machinery and automation professionals.

#### **Education Goal 4**

Team: training students have the organizational ability and communication technology, so that he / she can play a professional team to solve the power problem. Students should have the learning outcomes:

4.1 through group projects and published research, training students organizational skills and communication

# techniques.

- 4.2 The concept of integration through technology, so that graduates understand the importance of teamwork.
- 4.3 teach students to understand professional and ethical responsibility for engineering, personal ethics in the team understand the importance of fostering cooperation teamwork teamwork.

#### **Education Goal 5**

Global vision: to provide students with enough practical application of globalization, and social needs of a wide range of educational content, self-education students continue to grow, to become a professional talents with international vision. Students should have the learning outcomes:

- 5.1 is to enable students to understand the international situation, mechanical and automation engineering to understand the overall environmental, social and global impact.
- 5.2 Graduates should be able to enjoy the arts and culture, and have adequate foreign language skills, basic legal knowledge and cultural literacy.
- 5.3 Graduates should have the capacity for lifelong learning.

## Outline

- 1. Introduction
- 2. Solar
- 3. chemical energy
- 4. wind
- 5. hydraulic, tidal power
- 6. geothermal
- 7. nuclear energy
- 8. Energy Storage

## Prerequisite

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