

# 102-2 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	撞擊力學	Serial No. / ID	2050 / ADR5047
Dept.	機械與自動化工程學系博士班	School System / Class	研究所博士班1年1班
Lecturer	梁卓中	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	No
Time / Place	(一)12 / H440 (二)1 / H440	Language	Chinese

## Introduction

A. Da-Yeh University, Mechanical and Automation Engineering, Department of Educational Objectives:

1. A knowledge transfer: education students to apply mathematics, physics and engineering principles to solve mechanical and automation engineering problems.
2. Technical training: education students with the implementation of the experimental and theoretical application of the capability.
3. Thinking innovation: to cultivate students to independent thinking, innovative design and quality to confirm the ability.
4. Teamwork: educating students with engineering ethics and organizational communication capabilities so that they can play a team the power to resolve the professional issues.
- 5 life-long learning and a global vision: to cultivate students to have life-long learning skills and have absorbed enough to face the global demand for a wide range of professional knowledge.

B. Da-Yeh University, Mechanical and Automation Engineering Department nurturing of core competencies:

Institute

1. With Mechanical and Automation Engineering professional knowledge and technology.
2. With the planning and implementation of the thematic research capabilities.
3. With writing technical reports and papers on the ability.
4. With innovative thinking and problem-solving ability to.
5. Possess with different areas of ability to coordinate and integrate the personnel.
6. Knowledge, perspective and international outlook capability.
7. Have the leadership, management and planning capacity.
8. With life-long self to grow and learn the ability.

C. Da-Yeh University, Mechanical and Automation Engineering Course features:

1. Mathematics and basic science education
2. Engineering Professional Education
3. Designed to implement educational

#### 4. General Education

##### Course Objectives:

The primary goals of this subject are to provide the fundamentals of engineering mechanics and to apply these fundamentals to the study of vehicle crash worthiness. Also the subject will present a number of interesting and informative ancillary topics related to vehicle crashes but extending beyond purely fundamental theory.

#### Outline

1. Crash Pulse and Kinematics
2. Crash Pulse Characterization
3. Crash Pulse Prediction by Convolution method
4. Basics of Impact and Excitation Modeling
5. Response Prediction by Numerical Methods
6. Impulse , Momentum and Energy
7. Crash Severity and Reconstruction

#### Prerequisite

NO