朝陽科技大學 096學年度第1學期教學大綱
Motion Analysis and Engineering Application 動作分析與工程應用

當期課號	7163	Course Number	7163
授課教師	羅世忠	Instructor	LOU,SHU ZON
中文課名	動作分析與工程應用	Course Name	Motion Analysis and Engineering Application
開課單位	工業工程與管理系碩士班二A	Department	
修習別	選修	Required/Elective	Elective
學分數	3	Credits	3
課程目標	人體運動學及動力學，運動學包括平移和旋轉，座標系的坐標轉換．物體的運動及相對運動，尤拉角和尤拉參數和有限及瞬時螺旋，線速度、線加速度、角速度、角加速度之求法，如何應用於人體運動之分析，膚貼標記誤差的處理；動力學著重於利用逆向動力學計算，各關節力，力矩和功率．並介紹其工程應用與意義。	Objectives	The purpose of this course is to introduce the kinematics and kinetics of human motion. The kinemaitcs include the displacement and rotation of body segment, transformation of coordinate system, Euler"s angle, Euler"s parameter, skew axis. The kinetics includes the force, moments and powers of body joints. The application, then, will be demonstrated step by step.
教材	Lecture	Teaching Materials	Lecture
成績評量方式	30% Homework 20% project 25% midterm exam 25% final exam	Grading	30% Homework 20% project 25% midterm exam 25% final exam
教師網頁	http:/www.cyut.edu.tw/~szlou		
教學內容	人體運動學及動力學，運動學包括平移和旋轉，座標系的坐標轉換．物體的運動及相對運動，尤拉角和尤拉參數和有限及瞬時螺旋，線速度、線加速度、角速度、角加速度之求法，如何應用於人體運動之分析，膚貼標記誤差的處理；動力學著重於利用逆向動力學計算，各關節力，力矩和功率．並介紹其工程應用與意義。	Syllabus	The purpose of this course is to introduce the kinematics and kinetics of human motion. The kinemaitcs include the displacement and rotation of body segment, transformation of coordinate system, Euler's angle, Euler's parameter, skew axis. The kinetics include the force, moments and powers of body joints. The application, then, will be demostrated step by step.

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