

**朝陽科技大學 094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**

<b>當期課號</b>	7159	<b>Course Number</b>	7159
<b>授課教師</b>	羅世忠	<b>Instructor</b>	LOU,SHU ZON
<b>中文課名</b>	動作分析與工程應用	<b>Course Name</b>	Motion Analysis and Engineering Application
<b>開課單位</b>	工業工程與管理系碩士班二A	<b>Department</b>	
<b>修習別</b>	選修	<b>Required/Elective</b>	Elective
<b>學分數</b>	3	<b>Credits</b>	3
<b>課程目標</b>	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。	<b>Objectives</b>	The purpose of this course is to introduce the kinematics and kinetics of human motion. The kinematics 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.
<b>教材</b>		<b>Teaching Materials</b>	
<b>成績評量方式</b>		<b>Grading</b>	
<b>教師網頁</b>	-		
<b>教學內容</b>	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。	<b>Syllabus</b>	The purpose of this course is to introduce the kinematics and kinetics of human motion. The kinematics 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 demonstrated step by step.

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