

# 機電學院機電科技博士班車輛組資格考核科目抵考規定

## Arrival Regulations for Qualifying Examination Subjects

### (for Vehicle Engineering Division)

97 年 4 月 1 日學術委員會會議通過  
100 年 3 月 1 日學術委員會會議修正通過  
100 年 6 月 28 日期末系務會議修正通過  
103 年 8 月 14 日學術委員會會議通過  
108 年 10 月 1 日學術委員會會議通過  
111 年 11 月 15 日學術委員會會議通過

1. 依據機電學院規定，自 96 學年度起入學之博士生，選定資格考核科目若為就讀博士班期間修習之科目，且該科目成績前 30% 者，得視為通過此科目之資格考，並以該科目學期成績為資格考核科目之成績；學生申請資格考試抵免，得以已修習科目抵免或以 SCI 論文抵免。

1. According to the regulations of the College of Mechanical and Electrical Engineering, the doctoral students enrolled since the 96 academic year, if the chosen qualifying exam subject is a subject studied during the doctoral program, and the score of the subject is in the top 30%, it can be regarded as passing the qualifying examination of this subject. Among them, the semester grades of this subject will be used as the score of the qualifying examination subjects. The doctoral students apply for passing the qualifying examination can be credited to the subjects taken or the SCI papers.

2. 各組抵考科目如下：

2. The subjects for each category are as follows:

#### (1) 能源與動力組

※ 流體力學抵考：計算流體力學(能源所)。

※ 熱力學抵考：高等熱傳學、燃燒學。

※ 熱傳學抵考：能源系統分析。

#### (1) Energy and Power Category

※ Fluid Mechanics: Computational Fluid Dynamics (Graduate Institute of Energy).

※ Thermodynamics: Advanced Heat Transfer, Combustion.

※ Heat Transfer: Energy System Analysis.

#### (2) 機電與控制組

※ 自動控制抵考：含本所相關課程如 1. 控制理論、2. 智慧型控制、3. 數位控制理論與實務，外所課程則需經本組審查。

※ 電子學抵考：含各電子、電力電子、光電元件、晶片設計、類比信號處理課程；但不含影像處理、隨機程序、通訊、數位信號處理等課程。

※ 電機學抵考：含各電機與電路設計、AC/DC 電路分析等課程；但不含電力系統、積體電路設計等課程。

#### (2) Mechatronics and Control Category

※ Automatic control: including courses related to this institute such as 1. Control Theory, 2. Intelligent Control, 3. Digital Control Theory and Practice, and courses from other institutes need to be reviewed by Vehicle Engineering Division.

※ Electronics: including courses in electronics, power electronics, optoelectronic components, chip design, and analog signal processing; but excluding courses in image processing, random process, communication, and digital signal processing.

※ Electric Machinery: including courses in electric machines and circuit design, AC/DC

circuit analysis, etc.; but excluding courses in power system and integrated circuit design.

(3) 設計與分析組

※ 振動學抵考：高等振動學

※ 車輛動力學抵考：高等車輛動力學

※ 材料力學抵考：有限元素分析或工程最佳化與應用(兩門課任何一科均可)

(3) Design and Analysis Category

※ Mechanical Vibration: Advanced Mechanical Vibration

※ Vehicle Dynamics: Advanced Vehicle Dynamics

※ Mechanics of Materials: Finite Element Analysis or Engineering Optimization Methods and Applications (either of the two courses is acceptable)