

# 機電學院機電科技博士班 112 年入學生資格考試科目表

## Institute of Mechanical and Electrical Engineering

### Ph.D. Qualifying Exam Subject (for Students enrolled on Academic Year 112)

組別 Academic Division	科目 Qualifying Exam Subject
機電組 Mechatronic Engineering	<p>基礎科目： 八擇定一科(工程數學、自動控制、製造學、工程力學、材料學、熱力學、電子學、醫學概論)</p> <p>Basic subjects: choose one subject from the lists (Engineering Mathematics / Automatic Control / Manufacturing Processes / Engineering Mechanics/ Materials Science and Engineering/Thermodynamics / Electronics / Introduction to Medicine)</p> <p>專業科目(一)、(二)：以學生入學年度機電整合研究所及製造科技研究所課程科目表中所列科目為準，任選兩科考之。</p> <p>Professional subjects (1) and (2):</p> <p>Professional subjects are listed according to the curriculum of the Institute of Mechatronic Engineering and Graduate Institute of Manufacturing Technology for the year of admission. Two subjects shall be selected for the examination.</p>
車輛組 Vehicle Engineering	<p>應考科目分為 3 類，各分類中列 3 科選考科目；考生須選擇一類主修及一類副修，主修類任選 2 科應考，副修類任選 1 科應考。</p> <p>分類及各分類之科目如下：</p> <p>第 1 類(能源與動力組):流體力學、熱力學、內燃機。</p> <p>第 2 類(機電與控制組):自動控制、電機學、電子學。</p> <p>第 3 類(設計與分析組):振動學、車輛動力學、材料力學。</p> <p>The examinations are divided into 3 categories, and 3 subjects to be tested are listed for each category. The examinee must choose 1 main category for examination and 1 minor category for examination.</p> <p>Among them, the examinee must choose 2 examination subjects in the main category, and choose 1 examination subject in the minor category.</p> <p>The categories and the examination subjects of each category are as follows:</p> <p>Category 1 (Energy and Power Category): Fluid Mechanics, Thermodynamics, Heat Transfer.</p> <p>Category 2 (Mechatronics and Control Category): Automatic Control, Electric Machinery, Electronics.</p> <p>Category 3 (Design and Analysis Category): Mechanical Vibration, Vehicle Dynamics, Mechanics of Materials.</p>
自動化組 Automation Engineering	<p>基礎科目(三選一科)：高等工程數學、高等線性系統、數位影像處理。</p> <p>Basic subjects: choose one from three (Advanced Engineering Mathematics / Advanced linear system / Digital image processing )</p> <p>專業科目(任選二科)：以學生所修習之研究所課程科目表中所列科目為準，由指導教授指定考試科目。</p> <p>Professional subjects (1) and (2):</p> <p>Subject to the subjects listed in the curriculum of the Graduate institute of Automation Technology for the year of admission, two subjects can be selected for .</p>