

Ming Chuan University Department of Electronic Engineering Course Outline for all students entering in 2007

| Course | Credits | Hours | 1 st year | | | | 2 nd year | | | | 3 rd year | | | | 4 th year | | | | Note |
|---|---------|-------|----------------------|-----|--------|-----|----------------------|-----|--------|-----|----------------------|-----|--------|-----|----------------------|-----|--------|-----|-----------------|
| | | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | |
| | | | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | |
| Microelectronic and Circuit Design Laboratory I | 0 | 3 | | | | | 3 | | | | | | | | | | | | Computer course |
| Digital Logic Design | 3 | 3 | | | | | 3 | | | | | | | | | | | | |
| Engineering Mathematics | 6 | 6 | | | | | 3 | | 3 | | | | | | | | | | |
| Microelectronics | 6 | 6 | | | | | 3 | | 3 | | | | | | | | | | |
| Signal and System | 3 | 3 | | | | | | | 3 | | | | | | | | | | |
| Electromagnetics I | 3 | 3 | | | | | | | 3 | | | | | | | | | | |
| Microelectronic and Circuit Design Laboratory II | 0 | 3 | | | | | | | 3 | | | | | | | | | | Computer course |
| Electromagnetics II | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| Microelectronic and Circuit Design Laboratory III | 0 | 3 | | | | | | | | | 3 | | | | | | | | Computer course |
| Semiconductor Devices | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| Microprocessor Design and Laboratory | 3 | 4 | | | | | | | | | 3 | 1 | | | | | | | Computer course |
| Introduction to VLSI Design | 3 | 4 | | | | | | | | | 3 | 1 | | | | | | | Computer course |
| Communication Engineering | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Communication Laboratory | 0 | 3 | | | | | | | | | | | 3 | | | | | | Computer course |
| Optoelectronic Devices | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Analog VLSI Design | 3 | 3 | | | | | | | | | | | 3 | | | | | | |

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| | | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | |
| | | | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | |
| Introduction to telecommunication engineering | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| Medical Instrument | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| ERP Applied | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| Hardware Description Language Design | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| Electronic Instrument | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| Management | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| Biomechanics | 3 | 3 | | | | | | | | | 3 | | | | | | | | |
| Manufacture and Driving of Liquid Crystal Display | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Measurement Technique for Display | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Introduction to Flat Display | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| OLED Display Technology | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| TFT Device Physics | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Semiconductor Processing | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Optoelectronics | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Quantum Electronic Device Physics | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Fourier optics | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Introduction to Semiconductor Memory | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Antenna Engineering | 3 | 3 | | | | | | | | | | | 3 | | | | | | |

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| | | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | |
| | | | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | |
| Analog Communication | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Expert Systems | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Computer Architectures | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Neural Networks | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| FPGA/CPLD Design Lab | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Digital Logic Design Lab | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Random Process | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| User interface design | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Introduction of Biochip | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Linear Control System | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Biomedical Singnal Processing | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Bioinformatic | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| VLSI Circuit Design | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Marketing Management | 3 | 3 | | | | | | | | | | | 3 | | | | | | |
| Embedded System | 3 | 4 | | | | | | | | | | | | | 3 | 1 | | | |
| Optical Fiber Communication | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Modern Optics | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Laser and Applications | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Semiconductor Thin Film | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Nano Electronic Devices | 3 | 3 | | | | | | | | | | | | | 3 | | | | |

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| | | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | |
| | | | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | |
| Device design and manufacturing technology of TFT/LCD | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Digital Communication | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Communication Microelectronics | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| ESD Protection Design in Integrated Circuit | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Micro-Mechatronic Engineering | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Wireless Communication | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Digital VLSI Design | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Automatic Control | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Artificial Intelligent | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Computer Aid Design | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Digital Control System | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Design of Optical System | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Introduction of Biomedical Engineering | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Chip Design and Implementation I | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| Digital Signal Processing | 3 | 3 | | | | | | | | | | | | | 3 | | | | |
| RF VLSI Design | 3 | 3 | | | | | | | | | | | | | 3 | | | | |

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| | | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | Fall | | Spring | | | |
| | | | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | class | lab | | |
| Physical Training (7) ~ (8) | 4 | 4 | | | | | | | | | | | | | | 2 | | 2 | | 1-semester courses |
| Grand Total (Electronic Engineering Department & International Program) | Subtotal Required Course Credits | 105 | | | | | | | | | | | | | | | | | | |
| | Subtotal Elective Course Credits | 35 | | | | | | | | | | | | | | | | | | |
| | Total | 140 | | | | | | | | | | | | | | | | | | |

Notes:

1. Additional course credits taken in the College of Information and Department of Biomedical Engineering may be counted toward the credits required for graduation through the approval of department chair.
2. The international students whose school required courses and general education related courses taken in the International College will be counted toward the credits required for graduation. In addition, other related courses taken in the International College will be also counted toward the credits required for graduation through the approval of the department chair.
3. Additional course credits in general education or teacher education program may not be counted toward the credits required for graduation.
4. Students want to take the elective courses of EE master program, must subject to the department chairman's approval, then these credited courses can be classified as professional elective credits of the department; these credited courses can be counted in total credits for graduation.
5. The elective courses on this Course Outline may be counted toward total graduation credits by students who entered the university prior to the 2007 academic year.