

國立成功大學智慧半導體及永續製造學院
112-1 半導體製程學位學程博士學位候選人資格考核書單

Book List for Doctoral Qualifying Examination
of the Program on Semiconductor Process Technology

Under the NCKU Academy of Innovative Semiconductor and Sustainable Manufacturing

科目 Subject Titles	參考書籍 Book List
半導體元件物理 Physics of Semiconductor Devices	<ol style="list-style-type: none"> 1. Physics of Semiconductor Devices/Simon M. Sze, Yiming Li, Kwok K. Ng 2. Semiconductor Physics and Devices: Basic Principles/ Donald A. Neamen 3. Solid State Electronic Devices/ Ben G. Streetman, Sanjay Banerjee Open book.
半導體製程技術 Semiconductor Manufacturing Technology	<ol style="list-style-type: none"> 1. Stephen A Campbell, Fabrication engineering at the micro and nanoscale, Oxford University Press <p>Close book. 可使用沒有無線通訊功能之工程計算機，不得使用手機、平板、電腦等有無線通訊與文書儲存功能之設備。</p>
固態物理 Solid State Physics	<div style="display: flex; justify-content: space-around;">   </div> <p>Open book. Superconductivity 會考</p>
光電元件 Optoelectronic Devices	<ol style="list-style-type: none"> 1. "Photonic Devices" by Jia-Ming Liu 2. "Semiconductor Optoelectronic Devices" by Pallab Bhattacharya close book
電磁理論 Electromagnetics Theory	<ol style="list-style-type: none"> 1. Elements of electromagnetics/ M. N. O. Sadiku, S. R. Nelatury 2. Field and Wave Electromagnetics/ D. K. Cheng 3. Elements of Engineering Electromagnetics/ N. N. Rao Close book.