

## Course Content

Course Title (English)	Mathematical Physics
Course Title (Chinese)	物理數學
Credit	3
Instructor	Prof. Yean-Woei Kiang 江衍偉 教授
Outline	<p>The lectured topics in this course are as follows.</p> <ol style="list-style-type: none"><li>1. Finite Dimensional Vector Spaces</li><li>2. Function Spaces</li><li>3. Integral Equations</li><li>4. Differential Operators, Distributions and Green's Functions</li><li>5. Calculus of Variations</li><li>6. Transform and Spectral Theory</li><li>7. Partial Differential Equations</li><li>8. Asymptotic Expansions</li></ol>
Goal	<p>As an extension of the engineering mathematics on linear algebra, differential equations and complex variable theory, this course introduces advanced mathematical models for investigating physical problems. The formulations of integral equations, variational equations and partial differential equations are included with emphasis on both basic concepts and solution skills. The course can provide mathematical background for graduate students majoring in electromagnetic wave, photonics, solid-state physics, communication, or control.</p>
English Teaching	<input type="checkbox"/> YES <span style="margin-left: 200px;"><input checked="" type="checkbox"/> NO</span>
Teaching Material	<input checked="" type="checkbox"/> English <span style="margin-left: 200px;"><input type="checkbox"/> Chinese</span>