

## Course Content

Course Title (English)	Theory of Guided Waves
Course Title (Chinese)	導波理論
Credit	3
Instructor	Prof. Ruey-Beei Wu 吳瑞北 教授
Outline	<ol style="list-style-type: none"><li>1. Basic electromagnetic theory 基本電磁原理</li><li>2. TEM waves and transmission lines, 橫向電磁波與傳輸線</li><li>3. Propagation in cylindrical waveguides, 柱形波導內之傳播特性</li><li>4. Waveguides with inhomogeneous dielectric, 不勻介質充填波導</li><li>5. Excitation of waveguides, 波導之激發</li><li>6. Waveguide discontinuities, 波導之不連續問題</li><li>7. Propagation in Periodic Structures, 周期結構之傳播特性</li></ol>
Goal	<p>This course will address and derive several analytical solution approaches for important electromagnetic wave guiding problems and their related physical mechanisms. The discussion is focused on three fundamental guiding structures, including transmission lines, waveguides, and dielectric waveguides.</p> <p>The physical mechanisms addressed here include the propagation, excitation, and discontinuities associated with each of these guiding structures.</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>