

## Course Content

Course Title (English)	Computer Vision
Course Title (Chinese)	電腦視覺
Credit	3
Instructor	Prof. Shao-Yi Chien 簡韶逸 教授
Outline	<p>本課程的內容涵蓋電腦視覺的多個面向，從 image processing, recognition/detection, 到 geometry 等方向都在課程內容之中，期能讓修課同學對電腦視覺領域有完整的認識。</p> <p>課程綱要如下：</p> <ul style="list-style-type: none"><li>Introduction to human vision systems</li><li>Camera basic, image formation and basic Image processing</li><li>Feature detection and matching</li><li>Machine learning basics</li><li>Deep learning basics</li><li>Recognition and detection</li><li>Segmentation</li><li>Projective Geometry, Transformations and Estimation/Camera calibration</li><li>Camera Geometry and Single View Geometry</li><li>Two-View Geometry</li><li>Dense motion estimation/stereo</li><li>Structure from motion</li><li>3D reconstruction/depth sensing</li><li>Computational photography</li><li>Object tracking</li></ul>

	<p>Advanced topics in CV</p> <p>課程網站：<a href="http://media.ee.ntu.edu.tw/courses/cv/19F/">http://media.ee.ntu.edu.tw/courses/cv/19F/</a></p>
Goal	<p>本課程的內容涵蓋電腦視覺的多個面向，從 image processing, recognition/detection, 到 geometry 等方向都在課程內容之中，期能讓修課同學對電腦視覺領域有完整的認識。</p> <p>本課程和另外一門課程 Deep Learning for Computer Vision 互相搭配，兩門課皆修將可對此領域有全盤且深入的學習。</p>
English Teaching	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Teaching Material	<input checked="" type="checkbox"/> English <input type="checkbox"/> Chinese