

**Polymer Characterization**  
**Spring 2021**

**Instructor: Professor Rong-Ming Ho**

**Contents: Characterization technologies and instrumentation as well as principles**

<b>Syllabus</b>	<b>1</b>	<b>Introduction</b>
	<b>2</b>	<b>Gel Permeation Chromatography</b>
	<b>3</b>	<b>Thermal Analysis: DSC and TGA</b>
	<b>4</b>	<b>Dynamic Mechanical Analysis</b>
	<b>5</b>	<b>Spectroscopy: UV &amp; FTIR</b>
	<b>6</b>	<b>Spectroscopy: ECD &amp; VCD</b>
		<b>Midterm</b>
	<b>7</b>	<b>LM and PLM</b>
	<b>8</b>	<b>SEM and TEM</b>
	<b>9</b>	<b>Tomography</b>
	<b>10</b>	<b>Diffraction: WAXD, ED, and SAXS</b>
	<b>11</b>	<b>Scanning Probe Microscopy</b>
	<b>12</b>	<b>Surface Analysis</b>
		<b>Final Exam</b>

**Grading**

<b>Midterm Exam</b>	<b>50%</b>
<b>Final Exam</b>	<b>50%</b>