# BSc Major in Physics for Modern Technology Program Structure

Colour Code: Lots of Lab Work (red)
Some Lab Work (blue)
Little to No Lab Work (black)

| Year 1 (Richmond or Surrey campus) | Year 2 | Year 3 (Richmond campus) | Year 4 |
|---|---|---|---|
| **Semester 1**<br>• Physics I<br>• Calculus I<br>• Intro to Modern Technology<br>• Chemistry I<br>• English | **Semester 3**<br>• Electricity & Magnetism<br>• Modern Physics<br>• Experimental Physics<br>• Thermal Physics<br>• Complex Numbers & Linear Algebra | **Semester 5**<br>• Intro to Control<br>• Applied Optics & Optoelectronics<br>• Analytical Chemistry<br>• Project<br>• Business Elective | **Semester 7**<br>• Quantum Mechanics<br>• Programming for Instrumentation<br>• Senior Project – Part 1<br>• Business Elective<br>• Elective |
| **Semester 2**<br>• Physics II<br>• Calculus II<br>• Chemistry II<br>• Biology<br>• Elective | **Semester 4**<br>• Classical Mechanics<br>• Electronics<br>• Sensors & Actuators<br>• Multivariate & Vector Calculus<br>• Elective | **Semester 6**<br>• Process Control<br>• Signal & Image Processing<br>• Special Topic<br>• Work Experience | **Semester 8**<br>• Solid State Physics<br>• Instrumental Analysis<br>• Senior Project – Part 2<br>• Elective<br>• Elective |