|  |  |  |  |
| --- | --- | --- | --- |
| **Prac5**  **Physics Practical** | | | |
|  | P:\Drayton Logo\Drayton Manor logo filled 2014.JPG**Y12 Core Practical**  **Interference & Diffraction** | | |
| Skills Assessed | | Met? |
| 2. Applies investigative approaches and methods when using instruments and equipment | a. Correctly uses appropriate instrumentation, apparatus and materials (including ICT) to carry out investigative activities, experimental techniques and procedures with minimal assistance or prompting. |  |
| b. Carries out techniques or procedures methodically, in sequence and in combination, identifying practical issues and making adjustments when necessary. |  |
| 3. Safely uses a range of practical equipment and materials | a. Identifies hazards and assesses risks associated with these hazards, making safety adjustments as necessary, when carrying out experimental techniques and procedures in the lab or field. |  |
| b. Uses appropriate safety equipment and approaches to minimise risks with minimal prompting. |  |
| 4. Makes and records observations | a. Makes accurate observations relevant to the experimental or investigative procedure. |  |
| b. Obtains accurate, precise and sufficient data for experimental and investigative procedures and records this methodically using appropriate units and conventions. |  |
|  |  |  |

|  |  |
| --- | --- |
| Introduction | |
| In this investigation you will look into determining the wavelength of a coherent source by examining interference and diffraction, including the Young’s slit experiment and interference by a diffraction grating. | |
| Equipment   * Small laser * Retort stand * Boss clamp * White screen * Diffraction Grating * Young’s Slits * Ruler * Metre ruler * Vernier Calipers | Method  You will need to research and plan ***two*** methods that will provide sufficient, valid data to find a value for the wavelength of the laser. You will be expected to use a ***graphical method*** for the Young’s Slits, but ***not*** for the diffraction grating. |
| Relevant equations;  and | |