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(Extracted from student's MET-NDE Laboratory Manuals)

**INTRODUCTION**  
to  
**PRACTICAL WORK in HBCC's LABORATORIES or WORKSHOP**

The practical work that you will be doing at HBCC is to provide essential support for your theoretical studies.

If you want to follow a career in Engineering then you must develop good motor skills, i.e. good hand-eye coordination, and acquire a knowledge about the way materials, machines and electrical devices behave. You must also become familiar with a wide variety of tools and instruments that are commonplace in workshops and industries worldwide.

In addition laboratory work in your Major years will introduce you to proper methods of scientific experimentation, data measurement and analysis. You will also learn how to prepare and write formal scientific reports correctly.

Last but not least the practical work that you will do at HBCC will provide you with a small but essential grounding in the types of activities you could be engaged in during your compulsory Coop Training. This time you will be required to employ your report writing knowledge to prepare technical reports based on your work.

Your Coop is a vital step in the process of obtaining a good job after graduation and if you can impress your Industrial Supervisors with your practical knowledge and skills then you will have a flying start to your career.

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## MET/NDE LABORATORY POLICY

### **Materials**

You must bring materials that you will probably need to *every* lab. session, such as a note book (with squared paper), pencils, ruler, eraser and calculator. You are advised to learn how to plot graphs correctly first manually and then by using the graphing sub-program in Microsoft Excel.

### **Attendance**

Attending all scheduled lab. sessions is compulsory. Failure to do so can result in *rapid accumulation of absence hours* leading to a **DN grade** according to the rules of KFUPM and your Major Unit.

You cannot make up a missed lab. in a different section without prior approval from both your lab instructor and course lecturer.

### **Preparation for Sessions**

You should arrive on time. Late arrival will be handled according to the rules governing DN grade.

*Clothing.* According to *KFUPM safety regulations*, you must arrive wearing a western-style shirt, trousers and closed shoes. Students wearing traditional clothes will be *totally barred* from the lab.

### **During the Session**

You must *read and /or listen to your instructor* about the procedure for the experiment before touching any equipment.

### **Completion of Reports**

You may be asked to work separately on different experiments or you may be organised into a small group on a single experiment.

However, you must work independently to do the report write-up. If you take data from earlier lab reports in your possession you will be dealt with as having *cheated*.

Most experiments can be completed fully within the allotted time of the session. You should submit the report at the end. However, you may be allowed to submit your report later if there was an unexpected problem and your instructor gives you permission.

You must leave the equipment in a tidy and clean state before you leave the laboratory. Electrical devices, if used, must be switched off and disconnected.

### **Assessment of Lab. Work**

Lab. work comprises approximately 30% of the total score for most courses. You can check the weightings on the syllabus issued to you at the beginning of the semester. Final lab. scores will be aggregated with the other components of the course to obtain an overall grade. Labs are *not graded separately*.

Scores will be given for reports, mid-term and the final lab. exam plus any lab. quizzes. Lab. exams are compulsory. You will be required to perform and write-up a randomly selected standard experiment with no other support or assistance.

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