

# Training Objectives for Undergraduate Students on MPDS

## Levels/Scoring

The mentor will need to assess the undergraduate against the training objectives at the end of each placement or year. This will be done by scoring the candidate on a level 1-4 for each objective area. The scoring levels for each objective are listed below:

### TBP-1 Personal development

#### **TBP - 1.1 Self Management – the ability to control and direct own training, career and efforts**

Level

- 4: confident, able to negotiate own requirements & accept responsibility
- 3: works towards personal goals using available resources, with minimum guidance
- 2: accepts responsibility but requires prompting to work towards goals
- 1: has difficulty identifying personal goals and appropriate resources

#### **TBP – 1.2 Communication skills – the ability to give a complete and concise account of a situation, either orally or written**

Level

- 4 always clear and accurate, high standard of presentation; can communicate with people at all levels
- 3 reasonable presentation and generally accurate in content; rarely has difficulty making a point
- 2 usually easy to understand; has difficulty presenting to people at all levels
- 1 tendency to be in-accurate and has difficulty conveying information in any form

#### **TBP – 1.3 Comprehension – the ability to understand and interpret instructions**

Level

- 4 understands well at first attempt, readily grasps new ideas and concepts
- 3 does not normally require additional information or explanation to complete a task
- 2 sometimes requires additional information or explanation
- 1 frequently needs additional information or explanation and takes time to grasp new ideas and concepts

#### **TBP - 1.4 Personal/social skills – the ability to work with others and gain respect**

Level

- 4 works well in a group or team and establishes good relationships with people  
at all levels
- 3 works in a group or team, good relationships at own level
- 2 attempts to mix and make a contribution
- 1 prefers to work alone and has difficulty establishing good relationships

## TBP-2 Technical development

### **TBP – 2.1 Engineering practice – the ability to apply sound engineering practices**

Level

- 4 fully able to select materials, processes and components to customer specification
- 3 able to advise on suitable materials, processes and components
- 2 able to select and specify from organisation's own capabilities of manufacture
  
- 1 has difficulty selecting suitable materials, processes and components

### **TBP – 2.2 Engineering principles – the ability to apply sound engineering principles and technical judgement**

Level

- 4 fully able to apply engineering principles to design, development and research activities
- 3 able to apply established procedures
- 2 needs some guidance on the application of engineering principles
- 1 needs frequent guidance on the application of suitable engineering principles

### **TBP – 2.3 Problem solving – the ability to originate new and improved uses of people and resources**

Level

- 4 excellent problem solver; can propose innovative solutions
- 3 good understanding and useful innovator
- 2 puts forward some ideas but has difficulty with decisions
- 1 usually able to follow set procedures but shows little capability at proposing new solutions

### **TBP – 2.4 Technical achievement – the ability to translate knowledge and skills into achieving results**

Level

- 4 quickly develops skills and achieves excellent results without prompting
- 3 achieves well with little supervision
- 2 average ability in achieving results but hesitant with little initiative
- 1 usually needs supervision and assistance to achieve tasks

## TBP-3 Business development

### **TBP- 3.1 Commercial and financial implications – the ability to see engineering in a business environment**

Level

- 4 fully aware of the commercial and financial implications of the task in hand
- 3 generally aware of implications but sometimes needs clarification on particular points
- 2 only aware of the business environment when seconded to a commercial department
- 1 limited awareness of any commercial / financial ramifications

### **TBP- 3.2 Organisation skills – the ability to structure circumstances to a given objective**

Level

- 4 fully aware of the importance of planning and scheduling dependent on changing circumstances and tasks
- 3 usually organises well but sometimes needs guidance on some areas of planning
- 2 average ability but needs reminders on critical factors
- 1 muddled approach and unable to set priorities