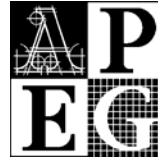


MENTORING PROGRAM
Sample – Trainee’s Four-Year Plan



Professional Engineers
 and Geoscientists of BC

Trainees Name: Fred Hoten
Degree: Mechanical Engineering, B.E, 1997
Date of Start of Training: September 1st 1997
Goal for Completion of Training: June 2002
Employer: Devel Tyres

Training Summary

Employer’s name and address: Starting Position: Responsibilities: Date of taking up position:	Devel Tyres, 10112-41st, Surrey, BC Test Technologist Design of test equipment Oct 97
Target Position for year 2 : Expected Responsibilities: Date to take up position:	Junior Test Engineer Design of test equipment and test procedures. Train test technologists. Oct 98
Target Position for year 3 : Expected Responsibilities: Date to take up position:	Junior Test Engineer Design of test equipment and test procedures. Identification of new tests and needs for new equipment Oct 99
Target Position for year 4 : Expected Responsibilities: Date to take up position:	Test Engineer Design of test procedures. Identification of new tests and needs for new equipment. Supervise 2 test technologists. Special project construct addition to test centre - new test room. Oct 2000
Target Position for year 5 : Expected Responsibilities: Date to take up position:	Senior Test Engineer In charge of new test room including a staff of 5. Jan 2001

Year 1

Responsibilities:

Designing test equipment
 Overseeing manufacture of this equipment
 Testing prototypes

Accountable for:

Applying good design principles
 Ensuring that all equipment needs are recognized

Indoctrination

Visits to locations where engineering designs are put into practice - 8 weeks in total this year
 Visit local suppliers of components 2 weeks
 Work on test track - 2 weeks
 Witness testing in test centre, aim to cover all 16 test rooms 4 weeks

Observation of the whole process of which engineering is a part

Exposure to problems that arise during implementation of designs – practicality issues,
 Work with installation crew for all my designs - expect 6 this year 6 weeks

Application of Theory

Analysis

Design

Design 6 pieces of test equipment (add-ons) 15 weeks

Testing

Test 3 of the six designs, draw up test procedure to ensure all requirements are covered 4 weeks

Implementation

Management

Introduction to supervision during installation & testing of test equipment 10 weeks

Communications

Dealing with suppliers and machine shop 2 weeks

Social Implications of Engineering

Awareness of professional responsibility

Test centre tests tyres for use by the general public - engineers run the centre, attempt to get an assignment with the marketing group to learn about user problems. 3 weeks

Sponsorship

Keeping registered engineers/geoscientists familiar with your work

Supervised by senior engineer and meet test centre manager every week- both P.Engs. Work with a PEng mentor every six weeks for 3 hours 1 week

Year 2

Responsibilities:

Design of test equipment and test procedures. Train test technologists

Accountable for:

My own work load,
Ensuring that the design meets the requirements
Technologists training program

Indoctrination

Visits to locations where engineering designs are put into practice

Instal at least six pieces of test equipment 8 weeks

Observation of the whole process of which engineering is a part

Work on assignment in the stores and purchasing areas to understand processes 8 weeks

Exposure to problems that arise during implementation of designs – practicality issues,

Visit machine shop to witness designs being manufactured 2 weeks

Application of Theory

Analysis

Identify various options for two problems which could be resolved by test equipment modifications 2 weeks

Design

Prepare 2 designs to solve the problems noted above 4 weeks

Carry out 2 designs to solve problems identified by others 4 weeks

Propose a design to improve either stores or purchasing work 4 weeks

Testing

Work in test centre on testing with tecnologists and trades 4 weeks

Develop a standard procedure for test equipment testing 2 weeks

Test new 6 designs as they go in 6 weeks

Implementation

As required during testing and machine shop work.
Implement stores/purchasing improvement 3 weeks

Management

Upgrade the training program for technologists 2 weeks

Communications

Will be developed during assignments 1 week

Social Implications of Engineering

Awareness of professional responsibility

Attend Association branch dinner meetings

Attend WCGCE technical group meetings

Sponsorship

Keeping registered engineers/geoscientists familiar with your work

Supervised by senior engineer and meet test centre manager every week- both P.Engs.
Work with a PEng mentor every six weeks for 3 hours 1 week

Year 3

Responsibilities:

Design of test equipment and test procedures. Identification of new tests and needs for new equipment

Accountable for:

Test Technologists
 Design of improvements
 Test schedules for product A

Indoctrination

Visits to locations where engineering designs are put into practice

Regular visits to manufacturers using Product A 4 weeks

Observation of the whole process of which engineering is a part

As above - users of "A"

Exposure to problems that arise during implementation of designs – practicality issues,

Follow up on last years designs - carry out a review 6 weeks

Application of Theory

Analysis

Develop test procedure for product A with designers 6 weeks
 Identify needs for new test equipment 2 weeks

Design

Design 4 new pieces of test equipment 10 weeks

Testing

Test designs 4 weeks
 Test product A 6 weeks

Implementation

Management

Continue work with training program for technologists 4 weeks

Communications

Working with designers and users of product A 3 weeks

Social Implications of Engineering

Awareness of professional responsibility

Increase involvement in management decision making 3 weeks
 Attend a training course on Contract law 1 week

Sponsorship

Keeping registered engineers/geoscientists familiar with your work

Supervised by senior engineer and meet test centre manager every week- both P.Engs.
 Work with a PEng mentor every six weeks for 3 hours 1 week

Year 4

Responsibilities:

Design of test procedures. Identification of new tests and needs for new equipment.
 Supervise 2 test technologists. Special project construct addition to test centre - new test room

Accountable for:

Management of test technologists
 Improvement of test centre
 Product A test program

Indoctrination

Visits to locations where engineering designs are put into practice

As required - minimal

Observation of the whole process of which engineering is a part

Obtain an assignment in the accounting and finance department 5 weeks

Exposure to problems that arise during implementation of designs - practicality issues,

As it occurs with all of the following

Application of Theory

Analysis

Review test centre and develop an improvement plan, schedule and budget 2 weeks

Draw up scope for special project 1 week

Design

Work with technologists to design special project 4 weeks

Contract document preparation for project 4 weeks

Testing

Product A testing - continuous improvement of product through testing and feedback to designers 4 weeks

Implementation

Letting contracts and fabrication of special contract - site management 8 weeks

Management

Management of special project - three technologists and contractors, budgeting etc 6 weeks

Communications

Preparation of justification for special project, obtaining finance, 3 weeks

Working with contractors on site 3 weeks

Social Implications of Engineering

Awareness of professional responsibility

Contract interpretation 2 weeks

Finance justification processes 2 weeks

Design of structures in special project and dangerous machines 4 weeks

Sponsorship

Keeping registered engineers/geoscientists familiar with your work

Supervised by senior engineer and meet test centre manager every week- both P.Engs. Work with a PEng mentor every six weeks for 3 hours 1 week

Year 5

Responsibilities:

In charge of new test room including a staff of 5.

Accountable for:

Test schedules
 Test room budget
 Performance of department

Indoctrination

Visits to locations where engineering designs are put into practice

Visit other test laboratories in other industries 3 weeks

Observation of the whole process of which engineering is a part

Involvement in management committee 2 weeks

Exposure to problems that arise during implementation of designs – practicality issues,

General running of the test centre 3 weeks

Application of Theory

Analysis

Identifying need for new test programs 4 weeks

Business planning 4 weeks

Design

Technical review of engineers work 10 weeks

Testing

Developing general test department procedures 6 weeks

Implementation

Increase involvement in sales and marketing to be aware of customers needs 2 weeks

Attend design meetings to keep up with designers needs 2 weeks

Management

Test room schedule development - included in above

Team development - included in above

Budgetting and financial approval - included in above

Communications

Follow up on results of financial secondment 3 weeks

Organise a secondment from another department into the test centre 1 week

Formalise communication links with rest of test centre 1 week

Social Implications of Engineering

Awareness of professional responsibility

Develop a quality assurance/business improvement program for test centre 8 weeks

Sponsorship

Keeping registered engineers/geoscientists familiar with your work

Keep informal contact with Mentor

Report to Manger of test centre