VAAL UNIVERSITY OF TECHNOLOGY

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1966-2026

Study Guide

Faculty	Engineering
Department	Process Control
Course	Project: Work-place-based Learning
Title	EIPRJ4A
Compiled By	TV Maloka
Year	2026
NQF Level	6
Credits	30

CONTACT DETAILS

DEPARTMENT	OFFICE	E-MAIL ADDRESS	TELEPHONE
Computer Systems Coordinator	S112	malokat@vut.ac.za	016 950 9433
Co-operative Education	N100	pricilla@vut.ac.za	016 950 9707

GENERAL REQUIREMENTS

- It is the responsibility of the student to register for WBL before training commences.
- The student will simultaneously register for EIEXL1A, EIEXL2A and EIPRJ4A, which are the three components of the workplace-based learning.
- The registration, completion and submission of reports must be done according to the guidelines.
- An accredited assessor, appointed by industry, will do the assessment of the project. This assessor must have a qualification that is equal to or higher than the qualification being assessed.
- The student must do the training under the supervision of a mentor, which could also be the assessor if the mentor has the necessary qualifications.
- A VUT accredited staff member will act as examiner.
- The assessor must complete page 3, the assessor's declaration (page 5), as well as the assessment report (page 6 to13).
- If the mentor or assessor needs any assistance feel free to contact the Process Control Coordinator at VUT. (See top of page)
- To fulfil the requirements of the Diploma: Electrical Engineering: Process Control, the student must successfully complete all academic requirements, as well as the three Workplace Based Learning components.
- The syllabus Appendix B is a generic WBL syllabus for the study fields of Process Control Engineering. The assessor/mentor can the specific area of the project.
- Graduate attributes (GA 12) are to be covered in this module as part of the requirements of the Engineering Council of South Africa (ECSA). The Process Control Engineering Syllabus Appendix B contain a detailed explanation of the GA 12.

REGISTRATION AND REPORT SUBMISSION INSTRUCTIONS

Registration of Workplace Based Learning (WBL)

Registration procedure:

- Registration for the following WBL modules EIEXL1A, EIEXL2A and EIPRJ4A must be done simultaneously.
- This project module EIPRJ4A carries a credit value of 30 with a minimum time requirement of 900 hours (approx. 23 weeks).

Project Reports

Preparation and submission procedure:

- The project proposal, as well as pages 5 and 6 must be emailed to the VUT Process Control & Computer Systems Engineering coordinator (Mr. TV Maloka), within the first three weeks after this module of WBL commences.
- Proposal

  Start with a firm introduction.

  State the problem.

  Propose solutions.

  Include a schedule and budget.
- The final project must be assessed and signed (page 5 to 13).
- After completing this module of WBL the assessor must complete the assessor's declaration (page 5).
- **FINAL REPORT**: **Compile a final report. Use the Project Design Format or you can use the company project format.**
- Your power point presentation to mentor can also be included with the report
- The final project and project assessment report for this module must be submitted by email to Mr TV Maloka (Room S112) at VUT.

1 GENERAL INFORMATION – TRAINING SCHEDULE REPORT (EIPRJ4A)

STUDENT NUMBER:		**STUDENT'S** POSTAL ADDRESS:
INITIALS & SURNAME:		
ID NUMBER:		
E-MAIL:		
TELEPHONE (WORK):		CELL PHONE:
COMPANY NAME:		NUMBER OF EMPLOYEES:
DIVISION:		NUMBER OF STUDENTS IN TRAINING:
TRAINING SITE/STREET ADDRESS:		NUMBER OF ECSA REGISTERED STAFF:
		COMPANY'S SPECIALIZATION FIELD OR PRODUCTS
ASSESSOR INITIALS & SURNAME:		ACCREDITED ASSESSOR: Y / N
E-MAIL:		CELL OR TELEPHONE:
WBL START DATE:		END DATE :

Procedure to complete and submit project proposal:

Procedure to compile and submit the assessment report:

- The project structure in Appendix C must be used to compile the written report on the project.
- After completion of the project, the project as well as the project assessment report must be submitted.
- After completion of this module on WBL, the assessor must complete the assessor's declaration
- The project and project assessment report (pages 5 to 13) must be submitted **by email** to Mr TV Maloka (Room S113) at the VUT

2 ASSESSOR DECLARATION – ASSESSMENT REPORT WBL PROJECT (EIPRJ4A)

STUDENT **INITIALS AND SURNAME :**	
VUT - STUDENT NUMBER :	
ID NUMBER :	
COMPANY :	
ASSESOR **INITIALS AND SURNAME :**	
CELL OR TELEPHONE NUMBER :	
E-MAIL:	
ASSESSMENT	

ASSESSOR DECLARATION

I, the above-mentioned assessor, declare that the above-mentioned student has completed this workplace-based learning module (WBL) of the qualification in the mentioned period under my supervision.

The student was found competent in the outcomes as specified in the assessment report.

Signature *Date*

VUT OFFICIAL **FINAL MARK:**	
SIGNATURE:	***DATE:***

ASSESMENT REPORT WBL PROJECT (EIPRJ4A)

Project Topic:……..

PROJECT ASSESSMENT

Topics	**Assessor**	**Rating Appendix A**	**VUT Examiner**
Oral presentation			
Assessment of documentation			
Independent working ability of student			
Technical standard of project			
Technical success of project			
Total			
Graduate Attribute Mark			
Final Mark			

Student Signature: ……Date:……

Assessor Signature ……. Date:…….

University Examiner Signature: …….. Date:…….

APPENDIX A

WBL - EIPRJ4A

Evaluation guideline

This guideline can be used by the assessor to do student evaluation.

Rating	Theoretical knowledge	Application of theory	Use of: advanced tools / measuring equipment	Skills integration / Competencies gained	Working speed	Accuracy	Interpersonal relations	Diligence motivation
1 0-19%	Has little knowledge	Cannot apply any theory	Cannot use advanced equipment	Has not integrated any skills	Very slow and do not successfully complete any tasks	Never accurate	Does not get along with any staff	Does nothing unless instructed
2 20-39%	Can recall some basic knowledge	Can apply some theory with assistance	Can use advanced equipment with assistance	Has integrated some documented skills	Never complete tasks successfully on time	Has to redo and then sometimes accurate	Can interact positively with most of the staff	Does just enough to keep out of trouble
3 40-59%	Knows the basic minimum	Can apply the basic minimum theory	Can use advanced equipment to do the basic minimum	Has integrated the basic minimum documented skills	Just complete tasks successfully on time	Just meets the minimum specifications	Interact positively with all the staff	Does the minimum expected
4 60-79%	Good knowledge	Can apply high level theory	Can select and use advanced equipment independently	Effectively integrate skills as needed in practical applications	Normally complete all tasks successfully before/on time	Work is always better than minimum expected	Is accepted by the staff as somebody with good personal skills	Normally looks for over and above work to do
5 80-100%	Excellent knowledge	Can analyze and synthesize	Optimally select and use advanced equipment	Innovatively integrate all theoretical and practical skills to solve problems	Always complete all tasks successfully before time	Work is always excellent.	Uses personality to positively influence other staff	Ambitious and eager to prove talents beyond requirements

Syllabus

1. Syllabus Content

a) **Project:** The specific area of the project is determined by the Employer. The following represents typical fields of project content: Industrial control systems, programmable devices, plant control loops and field instruments.

b) As an NQF level 6 module the project could be done in an engineering environment, which typically includes control systems, safety systems, industrial networks, field instruments and IIOT devices.

c) Other areas in which the project in work-place-based learning is recommended is in the more advanced aspects of process data capturing and storage systems. It could also include the design, configuration and implementation of IIOT systems and devices.

2. Learning Outcomes

After completion of this project the student should be able to demonstrate following:

- Apply engineering principles to complete a *well-defined* engineering project.
- Conduct investigations of well-defined problems through locating and searching relevant information, conducting standard tests, experiments, and measurements.
- Communicate effectively, both orally and in writing within an engineering context.
- Demonstrate an understanding of workplace practices to solve engineering problems consistent with academic learning achieved.
- Participation in a real-world problem that brings together intellectual enquiry and student engagement in meaningful work.

3. References

- .

4. Graduate Attributes

This module aids to assess the following ECSA defined graduate attributes as applicable to work-place-based learning:

Graduate Attribute 12: Individual, Team and Multidisciplinary Working Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member and leader in a technical team and to manage projects. .	
Where is outcome assessed?	In a workplace project.
How is this outcome assessed?	Students are required to present a compressively documented and referenced project report and to do an oral presentation of the project.
What is satisfactory performance?	The documentation and presentation is professionally presented.

What is the consequence of unsatisfactory performance?	The documentation must be corrected until it is of a satisfactory standard.

6. Module Credits

30 Credits

1 Credit = 30 Hours

30 x 30 = 900 hours (23 Weeks)

7. Module Knowledge Profile

Mathematical Sciences	Natural Sciences	Engineering Sciences	Engineering Design	Computing and IT	Complementary Studies	Work Integrated learning
		15	10		5	