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| **Document Details** | | | |
| **Version Number** | **Last Updated** | **Developed/Edited By** | **Validation Date** |
| 002 | 10 Oct 2018 | Ray Elvidge / Geoff Fielding | 14 Feb, 2014 |

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| **Training Package Title and National Code:** | | UEE11 Electrotechnology Training Package | | |
| **Qualification Title:** | Certificate III in Electrotechnology Electrician | | **Pathway No.** |  |
| **Qualification National ID:** | UEE30811 | | **Qualification State ID:** | A123 |

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| **Clustered Units - Nil** | | | | |
| **Above Code:** |  | **Above Name:** | |  |
| Consisting of the following units of competence (UoC): | | | | |
| **National ID** | **State ID** | | **Competency Title** | |
| UEENEEG101A | S7318 | | Solve problems in electromagnetic devices and related circuits | |

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| **Delivery Method** | Face to face / Flexible / on-the-job / e-learning | | | |
| **Training Room/Location:** | | E 105 | **Dates/Times:** | Semester 1, 2019 |

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| **Pre-requisites/Co-requisites** |
| UEENEEE104A Solve problems in d.c circuits |
| UEENEEE101A Apply OH&S Regulations, Codes and Practices in the Workplace |

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| **Student Learning Resources – Required** |
| UEE11 Resource Book UEENEEG101A, scientific calculator, stationery. |

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| **Resources – Optional** |
| AS/NZS 3000 (current edition)  Code of Practice – Safe electrical work on low voltage electrical installations,  WA Electrical Requirements,  Multi-media – DVD’s/Video’s  Electrical Wiring Practice Volume 1 & 2: Pethbridge & Neeson: 7th Edition, Electrical Principles for The Electrical Trades Volume 1 & 2:Jenneson:6th Edition, Jenneson & Harper, |

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| **Lecturer’s Details** | |
| **Name: Geoff Fielding** | **Phone: 0414391548** |
| **Email: Geoff Fielding@nmtafe.wa.edu.au** | **Location:** |

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|  | | **Delivery Program** | |
| **Date/**  **Session** | **Approx. Hrs** | **Topic** | **Student Activity and/or  Assessment Task** |
| **Day 1** | Morning session  4Hrs | Introduction to UOC.  “T1 - Magnetism” encompassing.  “T2 - Electro Magnetism”  encompassing. | - Distribute DAP and briefly explain sessions and proposed assessment times.  - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T1, review questions to demonstrate knowledge of the session.  - Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer.  - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T2, review questions to demonstrate knowledge of the session. |
| Afternoon session  3Hrs | “T1 - Magnetism” encompassing.  “T2 - Electro Magnetism” encompassing. | - Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer.  - After a demonstration was given by lecturer, complete Activity T1 in the workbook, identifying magnets and magnetic patterns.  - After completion, submit activity to your lecturer for assessment.  - After demonstration given by lecturer, complete Activity T2, electromagnet identification, a.c. and d.c. relays and contactors.  - After completion, submit activity to your lecturer for assessment. |
| **Day 2** | Morning session  4Hrs | “T3 - Magnetic circuits”  encompassing.  2 Hrs  “T4 - Electro Magnetic Induction” encompassing.  2 Hrs | - After theory covered in the workbook by the lecturer for the session, you will be required to complete Work Sheet T3, review questions to demonstrate knowledge of the session.  - Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer.  - After the theory covered in the workbook by the lecturer for the session, you will be required to complete Work Sheet T4, review questions to demonstrate knowledge of the session.  - Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer. |
| Afternoon session  3Hrs | “T4 - Electro Magnetic  Induction” encompassing. | - After a demonstration given by lecturer, complete Activity T4, electromagnetic induction, construct a magnetic circuit with 2 coils on a magnetic core.  - After completion, submit activity to your lecturer for assessment. |
| **Day 3** | Morning session  4Hrs | “T5 - Inductance” encompassing.  2Hrs  “T6 – Measurement Instruments” encompassing.  2 Hrs | - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T5, review questions to demonstrate knowledge of the session.  - Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer.  - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T6, review questions to demonstrate knowledge of the session.  - Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer. |
| Afternoon session  3Hrs | “T7 - Magnetic Devices”  encompassing. | - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T7, review questions to demonstrate knowledge of the session.  -. Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer. |

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| **Day 4** | Morning session  4Hrs | “T8 - Machine principles”  encompassing. | - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T8, review questions to demonstrate knowledge of session.  - Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer. |
| Afternoon session  3Hrs | “T9 - Rotating machine  Construction, testing and  Maintenance” encompassing. | - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T9, review questions to demonstrate knowledge of the session.  - Check all answers in your workbook for the session to powerpoint answer sheet presented by the lecturer. |
| **Day 5** | Morning session  4Hrs | “T10 - Generators” encompassing. | Lecturer deliver theory in the workbook. |
| Afternoon session  3Hrs | “T10 - Generators” encompassing. | - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T10, review questions to demonstrate knowledge of the session.  - Check all answers in your work book for the session to powerpoint answer sheet presented by the lecturer.  - After a demonstration was given by lecturer, complete Activity T10-1, Connect generator as shunt on load. |
| **Day 6** | Morning session  4Hrs | “T10 - Generators” encompassing. | - After a demonstration was given by lecturer, complete Activity T10-2, Connect generator as a cumulative compounded load.  - After a demonstration was given by lecturer, complete Activity T10-3, Connect generator as a cumulative compounded load.  - After completion of each assessment, submit activity to your lecturer for assessment. |
| Afternoon session  3Hrs | “T11 - Motors” encompassing. | Lecturer deliver theory in the workbook. |
| **Day 7** | Morning session  4Hrs | “T11 - Motors” encompassing. | - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T11, review questions to demonstrate knowledge of the session.  - Check all answers in your work book for the session to powerpoint answer sheet presented by the lecturer.  - After a demonstration was given by lecturer, complete Activity T11-1, connect d.c. motor as shunt motor and record load settings. |
| Afternoon session  3Hrs | “T11 - Motors” encompassing. | - After a demonstration given by lecturer, complete Activity  T11-2, connect d.c. motor as a compound motor using a faceplate starter and record load settings.  - After a demonstration given by lecturer, complete Activity  T11-3, connect d.c. motor as a compound motor using a faceplate starter and record load settings.  - After completion of each assessment, submit activity to your lecturer for assessment. |
| **Day 8** | Morning session  4Hrs | “T12 - Machine Efficiency”  encompassing.  2 Hrs.  **Revision and assessment** | - After theory covered in workbook lecturer for the session, you will be required to complete Work Sheet T12, review questions to demonstrate knowledge of the session.  - Check all answers in your work book for the session to powerpoint answer sheet presented by the lecturer.  **Students to participate in revision session followed by a short break and theory assessment.** |
| Afternoon session  3Hrs | **Practical assessment** | **Students to carry out practical assessment.**  **Instructions provided at the time of assessment.** |

**Please note: This program is to be used as a guide and may be adapted to meet the needs of students. You will be notified of changes as they occur.**

**Assessment Requirements**

You will be assessed by:

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| **Assessment Method (Tools)** | **Assessment Task Explanation** |
| Workshop Skills Observation | You will be required to complete all Activity Sheets from the Resource Book UEENEEG101A (As shown in D&AP)The practical sheets will explain what you need to do during each of these activities. |
| Portfolio of Evidence (Part A) | You will be required to complete all Work Sheet questions from the Resource Book UEENEEG101A (As shown in D&AP) |
| Portfolio of Evidence (Part B) | You will be required to complete all Work Sheet questions from the Resource Book UEENEEG101A (As shown in D&AP) |
| Theory Assessment (Part A) | You will complete a short answer and multiple choice theory assessment for UEENEEG101A, based on theory covered in class. |
| Theory Assessment (Part B) | You will complete a short answer and multiple choice theory assessment for UEENEEG101A, based on theory covered in class. |
| Practical Assessment | You will complete a MOTORS practical assessment for G101A, based on theory covered in class. |

**Your lecturer will provide more details of the requirements of each assessment method (tool) at a later date**.

**Reasonable Adjustment**  
We recognise that every student has different learning styles and needs. Please let your lecturer know if there is anything that may have an effect on your learning so they may be able to adjust your plan.

**Results and Appeals**

Students may lodge an appeal against an academic result. Appeals must be lodged within four weeks of the date of your statement of academic record being issued. Please contact the Student Experience Team relevant to your portfolio area.

**Absences**

If you are unable to attend any class or assessment session you must inform your lecturer as soon as possible.

If you miss an assessment due to illness, please provide your lecturer with a medical certificate in order to negotiate an alternate time for the assessment.

**Plagiarism**

Plagiarism is using another person's ideas and words without clearly acknowledging the source of the information. It is not acceptable to submit an assessment that is based on another person's work and claim it as your own. If you submit an assessment that is significantly or recognizably the same or similar in content as submitted by another student (current or past) you may have to submit another assessment.

**Assessment Resit/Resubmission**

You may qualify for (1) re-assessment per each assessment event when:

* you have made a reasonable attempt to complete the assessment satisfactorily

AND

* you have submitted the original assessment by the due date

OR

* you have attended and participated in the original assessment event

In the case of a re-assessment opportunity, your lecturer will give you a due date for your second attempt. Should you not achieve a Satisfactory result on the second attempt, you will need to re-enrol (R) in the unit.

In certain situations a re-assessment is not possible; please refer to your assessment instructions.