

| | |
|--|--|
| Module Title: | Research Skills |
| Language of Instruction: | English |
| Credits: | 5 |
| NFQ Level: | 8 |
| Module Delivered In | 4 programme(s) |
| Teaching & Learning Strategies: | Learners will undertake practical, class-based assignments (development of questionnaires, etc) in order to enhance learning. The programme gives the learners a thorough background in practical report and research writing that they will encounter in the work environment. Students will undertake a cross modular assignment, applying their learning on this module with their experience on the placement module in order to complete a real world agri-business research project. |
| Module Aim: | To provide learners with the competence, knowledge and skills to plan, design, formulate and manage an agricultural research project. |
| Learning Outcomes | |
| <i>On successful completion of this module the learner should be able to:</i> | |
| LO1 | Apply the means, competences, and techniques of the Research Process to an ethical standard to conduct an agri-business research project |
| LO2 | Develop an applied scientific agricultural research proposal |
| LO3 | Demonstrate a knowledge of data analysis and interpretation, and statistical testing using SPSS software |
| Pre-requisite learning | |
| Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i> | |
| No recommendations listed | |
| Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i> | |
| No incompatible modules listed | |
| Co-requisite Modules | |
| No Co-requisite modules listed | |
| Requirements <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i> | |
| No requirements listed | |

Module Content & Assessment

| Indicative Content |
|--|
| Introduction to the Research Process • The Research Process: The importance of research within the farming and agri- business context; Research terminology, Research industry, Ethics, Technology for agricultural improvement. |
| Research Design • Types of research design. Steps in the research design process. Potential errors, Research objectives |
| Data Types, Secondary Data • Purposes, sources of secondary data |
| Experiments • The concept of experiments. Types of experiments, Experimental validity. Types and tools. |
| Qualitative Research • Observation and other qualitative methods • Survey data collection methods and the Survey Instrument • Data collection modes, Factors determining same, Errors, Wording Of Questionnaires, Structuring, Sequencing, Error minimization. |
| Measurement • General concepts, Measurement scales, Attitude measurement, • Rating and ranking scales, Reliability and validity of measurements. |
| Report Writing and Presentation • How to write a research report, Format and content, Presentation of results and referencing. |
| Data Collection and Descriptive Statistics • Mean, mode, median. |
| Probability • Probability laws. Binomial, Poisson and Normal distributions. |
| Statistical Inference Using Samples • T-test, Chi-square testing. • Statistical determination of sample size. • Statistical significance and practical significance. • Confidence intervals |
| Syllabus Content for Practical S.P.S.S. Component. 1. Introduction to SPSS and Analysis of variance / ANOVA 2. Using the data editor • Data coding and entry • Defining variables • Value labels • Missing values 3. Modifying and recoding data values Data analysis using a case study dataset Frequencies Descriptive statistics Explore and cross tab procedures Multiple response procedures Hypothesis testing |
| Using the Output Editor • Creating and modifying charts • Exporting tables and charts |

| Assessment Breakdown | % |
|----------------------|--------|
| Project | 80.00% |
| Practical | 20.00% |

| Continuous Assessment | | | | |
|-----------------------|-------------------------------------|-------------------|------------|-----------------|
| Assessment Type | Assessment Description | Outcome addressed | % of total | Assessment Date |
| Project | Theoretical research project | 1,2 | 40.00 | n/a |
| Project | Develop an applied research project | 1,2 | 40.00 | n/a |

No Project

| Practical | | | | |
|-----------------------------|--|-------------------|------------|-----------------|
| Assessment Type | Assessment Description | Outcome addressed | % of total | Assessment Date |
| Practical/Skills Evaluation | Data Analysis, Interpretation and Statistical Analysis using SPSS Software | 1,2,3 | 20.00 | n/a |

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

| Workload: Full Time | | |
|----------------------------|--------------------|--|
| <i>Workload Type</i> | <i>Frequency</i> | <i>Average Weekly Learner Workload</i> |
| Lecture | 12 Weeks per Stage | 1.50 |
| Lab/Lecture | 12 Weeks per Stage | 1.50 |
| Independent Learning Time | 12 Weeks per Stage | 3.00 |
| Total Hours | | 72.00 |

Module Delivered In

| Programme Code | Programme | Semester | Delivery |
|----------------|---|----------|-----------|
| CW_SWOAG_B | Bachelor of Science (Honours) in Organic Agriculture | 5 | Mandatory |
| CW_SWSFM_B | Bachelor of Science (Honours) in Sustainable Farm Management and Agribusiness | 5 | Mandatory |
| CW_SWOAG_D | Bachelor of Science in Organic Agriculture | 5 | Mandatory |
| CW_SWSFM_D | Bachelor of Science in Sustainable Farm Management and Agribusiness | 5 | Mandatory |