



**CORPORATE AND ACADEMIC SERVICES**

**MODULE SPECIFICATION**

| Part 1: Basic Data    |                                  |                    |                           |                   |          |
|-----------------------|----------------------------------|--------------------|---------------------------|-------------------|----------|
| Module Title          | Farm Mechanisation and Buildings |                    |                           |                   |          |
| Module Code           | UILXSX-15-1                      | Level              | 1                         | Version           | 1        |
| Owning Faculty        | Hartpury                         | Field              | Animal and Land Science   |                   |          |
| Contributes towards   | FdSc Agriculture                 |                    |                           |                   |          |
| UWE Credit Rating     | 15                               | ECTS Credit Rating | 7.5                       | Module Type       | Standard |
| Pre-requisites        | None                             |                    | Co-requisites             | None              |          |
| Excluded Combinations | None                             |                    | Module Entry requirements | None              |          |
| Valid From            | 01 September 2014                |                    | Valid to                  | 01 September 2020 |          |

|                          |                 |
|--------------------------|-----------------|
| <b>CAP Approval Date</b> | 27 January 2014 |
|--------------------------|-----------------|

| Part 2: Learning and Teaching                 |  |   |    |                     |   |   |     |                    |            |
|---|--|---|----|---------------------|---|---|-----|--------------------|------------|
| Learning Outcomes                             | <p>On successful completion of this module students will be able to:</p> <ol style="list-style-type: none"> <li>1 Describe the function and specification of a range of agricultural machinery (A).</li> <li>2 Explain the appropriate mechanical maintenance procedures for agricultural machinery and calibration of spreaders and sprayers (A).</li> <li>3 Appraise a range of machinery and buildings for given agricultural production systems (A, B).</li> <li>4 Justify the most effective building design for an intended purpose (B).</li> <li>5 Interpret data to implement best choice of machinery of building to optimise agricultural production (B).</li> </ol> |   |    |                     |   |   |     |                    |            |
| Syllabus Outline                              | <ol style="list-style-type: none"> <li>1 Principles of tractor engines and power transmissions systems.</li> <li>2 Knowledge and understanding of ground preparation, cutting and harvesting mechanisms.</li> <li>3 Crop establishment and protection machinery.</li> <li>4 An overview of servicing and maintaining machinery (tractors, combines and forage harvesters in particular).</li> <li>5 Legislation relating to machinery use.</li> <li>6 Machinery performance and operations in relation to productivity and costs.</li> <li>7 Study of farm building designs and options.</li> <li>8 Crop storage; forage silos and livestock housing requirements.</li> </ol>  |   |    |                     |   |   |     |                    |            |
| Contact Hours                                 | <p>Indicative delivery modes:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Lectures, guided learning, seminars etc</td> <td style="text-align: right;">33</td> </tr> <tr> <td>Self directed study</td> <td style="text-align: right;">3</td> </tr> <tr> <td>Independent learning including work placement</td> <td style="text-align: right;">114</td> </tr> <tr> <td><b>TOTAL HOURS</b></td> <td style="text-align: right;"><b>150</b></td> </tr> </table>   | Lectures, guided learning, seminars etc | 33 | Self directed study | 3 | Independent learning including work placement | 114 | <b>TOTAL HOURS</b> | <b>150</b> |
| Lectures, guided learning, seminars etc       | 33   |   |    |                     |   |   |     |                    |            |
| Self directed study                           | 3  |   |    |                     |   |   |     |                    |            |
| Independent learning including work placement | 114  |   |    |                     |   |   |     |                    |            |
| <b>TOTAL HOURS</b>                            | <b>150</b>   |   |    |                     |   |   |     |                    |            |

| Teaching and Learning Methods        | <p>A variety of learning strategies will be used including lectures, seminars and on-farm and computer workshops and self-directed learning. Students will also be expected to engage in independent learning throughout the module and time to complete assessment work.</p> <p><b>Scheduled learning</b><br/>May include lectures, seminars, tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; external visits; work based learning; supervised time in studio/workshop.</p> <p><b>Independent learning</b><br/>May include hours engaged with essential reading, case study preparation, assignment preparation and completion etc.</p> <p><b>Virtual learning environment (VLE)</b><br/>This specification is supported by a VLE where students will be able to find all necessary module information. Direct links to information sources will also be provided from within the VLE.</p>   |                         |   |                         |                       |                 |     |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
|--------------------------------------|--|-------------------------|---|-------------------------|-----------------------|-----------------|-----|----|-----|---|-----|------------------------------------|-----|----------------------------------|-----|--------------------------------------|----|--|------|
| Key Information Sets Information     | <p>Key information sets (KIS) are produced at programme level for all programmes that this module contributes to, which is a requirement set by HESA/HEFCE. KIS are comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.</p> <p><b>Key information set – module data</b></p> <p>Number of credits for this module <span style="float: right; border: 1px solid black; padding: 2px;">15</span></p> <table border="1" data-bbox="389 1039 1447 1227"> <thead> <tr> <th>Hours to be allocated</th> <th>Scheduled learning and teaching study hours</th> <th>Independent study hours</th> <th>Placement study hours</th> <th>Allocated Hours</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">150</td> <td style="text-align: center;">36</td> <td style="text-align: center;">114</td> <td style="text-align: center;">0</td> <td style="text-align: center;">150</td> </tr> </tbody> </table> <p>The table below indicates as a percentage the total assessment of the module which constitutes:</p> <ol style="list-style-type: none"> <li>1 <i>Written exam:</i> Unseen written exam, open book written exam, in-class test.</li> <li>2 <i>Coursework:</i> Written assignment or essay, report, dissertation, portfolio, project.</li> <li>3 <i>Practical exam:</i> Oral assessment and/or presentation, practical skills assessment, practical exam.</li> </ol> <p>Please note that this is the total of various types of assessment and will not necessarily reflect the component and module weightings in the assessment section of this module description:</p> <p>Total assessment of the module:</p> <table data-bbox="389 1686 1059 1823"> <tr> <td>Written exam assessment percentage</td> <td style="border: 1px solid black; text-align: center;">50%</td> </tr> <tr> <td>Coursework assessment percentage</td> <td style="border: 1px solid black; text-align: center;">50%</td> </tr> <tr> <td>Practical exam assessment percentage</td> <td style="border: 1px solid black; text-align: center;">0%</td> </tr> <tr> <td></td> <td style="text-align: center;">100%</td> </tr> </table> | Hours to be allocated   | Scheduled learning and teaching study hours | Independent study hours | Placement study hours | Allocated Hours | 150 | 36 | 114 | 0 | 150 | Written exam assessment percentage | 50% | Coursework assessment percentage | 50% | Practical exam assessment percentage | 0% |  | 100% |
| Hours to be allocated                | Scheduled learning and teaching study hours  | Independent study hours | Placement study hours                       | Allocated Hours         |                       |                 |     |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| 150                                  | 36   | 114                     | 0   | 150                     |                       |                 |     |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Written exam assessment percentage   | 50%  |                         |   |                         |                       |                 |     |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Coursework assessment percentage     | 50%  |                         |   |                         |                       |                 |     |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
| Practical exam assessment percentage | 0%   |                         |   |                         |                       |                 |     |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |
|                                      | 100%   |                         |   |                         |                       |                 |     |    |     |   |     |                                    |     |                                  |     |                                      |    |  |      |

|                         |   |
|-------------------------|---|
| Reading Strategy        | <p><b>Core readings</b><br/>Any essential reading will be indicated clearly, along with the method for accessing it, e.g. students may be required to purchase a set text, be given a print study pack or be referred to texts that are available electronically or in the Library. Module guides will also reflect the range of reading to be carried out.</p> <p><b>Further readings</b><br/>Further reading will be required to supplement the set text and other printed readings. Students are expected to identify all other reading relevant to their chosen topic for themselves. They will be required to read widely using the library search, a variety of bibliographic and full text databases, and Internet resources. Many resources can be accessed remotely. The purpose of this further reading is to ensure students are familiar with current research, classic works and material specific to their interests from the academic literature.</p> <p><b>Access and skills</b><br/>Formal opportunities for students to develop their library and information skills are provided within the induction period and study skills sessions. Additional support is available through online resources. This includes interactive tutorials on finding books and journals, evaluation information and referencing. Sign up workshops are also offered.</p>   |
| Indicative Reading List | <p>The following list is offered to provide validation panels/accrediting bodies with an indication of the type and level of information students may be expected to consult. As such, its currency may wane during the life span of the module specification. However, as indicated above, CURRENT advice on readings will be available via other more frequently updated mechanisms, including the module guide.</p> <ul style="list-style-type: none"> <li>• Agro Business Consultants. (Current Edition) <i>The agricultural budgeting and costing book</i>. Melton Mowbrey: ABC Books.</li> <li>• Barnes, M. and Mander, C. (Current Edition) <i>Farm building construction: the farmers guide</i>. Ipswich: Farming Press.</li> <li>• Bell, B. (Current Edition) <i>Farm machinery</i>. Ipswich: Farming Press.</li> <li>• Culpin, C. (Current Edition) <i>Farm machinery</i>. Oxford: Blackwell.</li> <li>• Hunt, D. (Current Edition) <i>Farm power and machinery management</i>. Hoboken: Wiley-Blackwell.</li> <li>• Landers, A. (Current Edition) <i>Resource management: farm machinery selection, investment and management</i>. Ipswich: Farming Press.</li> <li>• St. Joseph: American Society of Agricultural &amp; Biological Engineers.</li> <li>• Rural and Industrial Design and Building Association. (Current Edition) <i>The farm building handbook</i>. RIDBA.</li> <li>• Soffe, R.J. (Current Edition) <i>The agricultural notebook</i>. Oxford: Blackwell.</li> <li>• Southorn, N. (Current Edition) <i>Farm Buildings: Planning and Construction</i>. Oxford: Butterworth-Heinemann.</li> </ul> <p>Electronic Resource:</p> <ul style="list-style-type: none"> <li>• Farmers Weekly Power Farming <a href="http://www.fwi.co.uk/powerfarming">www.fwi.co.uk/powerfarming</a>.</li> <li>• Journal of Agricultural Engineering Research.</li> </ul> <p>Websites and databases:</p> <ul style="list-style-type: none"> <li>• Amazone Ltd <a href="http://www.amazone.co.uk">www.amazone.co.uk</a>.</li> <li>• British Veterinary Association <a href="http://www.bva.co.uk">www.bva.co.uk</a>.</li> <li>• CLAAS Group <a href="http://www.claas-group.com">www.claas-group.com</a>.</li> <li>• John Deere <a href="http://www.deere.com">www.deere.com</a>.</li> <li>• Department for Environment, Food and Rural Affairs <a href="http://www.defra.gov.uk">www.defra.gov.uk</a>.</li> <li>• JCB <a href="http://www.jcb.co.uk">www.jcb.co.uk</a>.</li> <li>• Kverneland Group <a href="http://www.kvernelandgroup.com">www.kvernelandgroup.com</a>.</li> <li>• Kuhn Farm Machinery <a href="http://www.kuhn.co.uk">www.kuhn.co.uk</a>.</li> </ul> <p>The above sources give an indication of the area of study involved. Although students may be directed to some specific titles, they will also be encouraged to identify other relevant material for themselves.</p> |

| <b>Part 3: Assessment</b>   |  |                              |           |
|---|--|------------------------------|-----------|
| <b>Assessment Strategy</b>  | <p>The written examination has been chosen so to facilitate broad assessment of the knowledge and understanding; and the intellectual skills gained throughout the module in a time-limited and controlled setting.</p> <p>The coursework is chosen to facilitate in depth utilisation of skills and understanding gained from farm visits and seminars; and relating this to material learnt in lectures and in additional study via analysis, evaluation and discussion.</p> <p>Feedback will be provided throughout the module via tutorial support; class and on farm discussions and short exercises in addition to that on assignment submissions and examination scripts.</p> <p>In line with the College's commitment to facilitating equal opportunities, a student may apply for alternative means of assessment if appropriate. Each application will be considered on an individual basis taking into account learning and assessment needs. For further information regarding this please refer to the VLE.</p> |                              |           |
| Identify final assessment component and element   |  | Written examination (1 hour) |           |
| % weighting between components A and B (Standard modules only)  |  | <b>A:</b>                    | <b>B:</b> |
|   |  | 50%                          | 50%       |
| <b>First Sit</b>  |  |                              |           |
| <b>Component A (controlled conditions)</b>  |  | <b>Element weighting</b>     |           |
| <b>Description of each element</b>  |  |                              |           |
| 1   | Written examination (1 hour)   | 100%                         |           |
| <b>Component B</b>  |  | <b>Element weighting</b>     |           |
| <b>Description of each element</b>  |  |                              |           |
| 1   | Written report (1,250 words)   | 100%                         |           |
| <b>Resit (further attendance at taught classes is not required)</b>   |  |                              |           |
| <b>Component A (controlled conditions)</b>  |  | <b>Element weighting</b>     |           |
| <b>Description of each element</b>  |  |                              |           |
| 1   | Written examination (1 hour)   | 100%                         |           |
| <b>Component B</b>  |  | <b>Element weighting</b>     |           |
| <b>Description of each element</b>  |  |                              |           |
| 1   | Written assignment (1,250 words)   | 100%                         |           |
| If a student is permitted an <b>EXCEPTIONAL RETAKE</b> of the module the assessment will be that indicated by the Module Description at the time that retake commences. |  |                              |           |