**PART TWO PROGRAMME SPECIFICATON**

| | | |
|---|---|---|
| 1 | **Awarding body** | Glyndŵr University |
| 2 | **Teaching institution** | Glyndŵr University |

3 **Award title**

BSc Civil Engineering Studies

4 **Final awards available**

Diploma of Higher Education in Civil Engineering Studies

5 **Professional, Statutory or Regulatory Body (PSRB) accreditation**

The programme does not currently attract any PSRB accreditation. However, it is anticipated that during the first year of programme delivery, the University will submit an application for approval to the Joint Board of Moderators (comprising the Institution of Civil Engineers, the Institution of Structural Engineers, the Chartered Institution of Highways and Transportation, and the Institute of Highway Engineers).

The application will seek for the programme to be approved as completing the educational base for an Incorporated Engineer (IEng) for holders of a HNC/D or Foundation Degree in Civil Engineering. If granted, graduates from the BSc Civil Engineering programme would be eligible to apply for IEng review.

**Please list any PSRBs associated with the proposal**

Institution of Civil Engineers.
Institution of Structural Engineers.
Chartered Institution of Highways and Transportation.
Institute of Highway Engineers.
Engineering Council.

**Accreditation available**

As above

**Please add details of any conditions that may affect accreditation (eg is it dependent on choices made by a student?)**

Note: Any approval granted by the JBM will not be associated with the Diploma of HE Civil Engineering

| | | |
|---|---|---|
| 6 | JACS3 **code** | H200 |
| 7 | UCAS **code** | N/A |

8 **Relevant QAA subject benchmark statement/s**

UK-Spec UK Standard for Professional Engineering Competence -Engineering Technician, Incorporated Engineer and Chartered Engineer Standard (3rd Ed 2013) developed from the QAA Benchmark for Engineering.(Feb 2015)

9 **Other external and internal reference points used to inform the programme**

| | | |
|---|---|---|
| | **outcomes** | |
| | UK-Spec UK Standard for Professional Engineering Competence -Engineering Technician, Incorporated Engineer and Chartered Engineer Standard.<br><br>The Accreditation of Higher Education Programmes. UK Standard for Professional Engineering Competence.<br><br>Joint Board of Moderators Guidelines for Accredited Bachelors degree programme leading to Incorporated Engineer.<br><br>Employer Managed work-based further learning programmes for completion of Educational base for Incorporated Engineer.<br><br>Joint Board of Moderators Submission for Accreditation For Academic Courses leading to Engineering Council Registration**.**<br><br>Institution Professional Review Guidance | |
| *10* | **Mode of study** | Part time |
| *11* | **Language of study** | English |

Office use only

Approved August 2016
Revised April 2017 (AM2 amendment to AUR525)
Revised August 2017 (AM2 amendment; replace AUR507 with AUR527)

## 12 Criteria for admission to the programme

### Programme specific requirements

The normal minimum requirement for entry onto the programme is:

Higher National Certificate in Civil Engineering.

Applicants are required to be employed in a construction-related discipline.

### Non-standard entry criteria
(e.g. industry experience)

Due to the expectations of the Joint Board of Moderators, it is unlikely that applicants who do not meet the programme specific requirements noted above, will be eligible to join the programme.

## 13 Recognition of Prior (Experiential) Learning

There is no RP(E)L available for this programme. All students will have previously achieved at least HNC Civil Engineering, and will study 100 Level Five and 80 Level Six credits.

## 14 Aims of the programme

This programme has been developed to enable students who possess a Higher National Certificate in Civil Engineering to complete a BSc Civil Engineering Studies. Students who have met the admissions criteria as above will enter the BSc programme at Level 5, studying 100 Level Five and 80 Level Six credits.

## 15 Distinctive features of the programme

The benefits of undertaking level 5 & 6 study will be to provide learners with the opportunity to develop their analytical, problem solving and critical thinking skills in order that they may be able to operate more effectively in industry.

The programme builds on the knowledge gained within the HNC in Civil Engineering by enabling learners to undertake specialist areas of study which complement and expand their knowledge (and associated skills) of the wider context within which civil engineering and construction management is delivered. These aims will be underpinned by a learning strategy which seeks to offer students, self-determination in terms of learning, and professional and personal development.

The course team are passionate about ensuring that students get the best possible experience at the University and that they are well prepared to work more effectively in their existing role. We do this by making sure we are accessible to our students, and by making sure that our teaching and assessments relate to work and the requirements of the professional institutions and help to develop the relevant skills and knowledge demanded by employers.

## 16 Programme structure narrative

The Programme will be delivered on a part time basis as follows:

BSc Civil Engineering Studies is a two year programme. Year 1 will consist of attendance on a day release basis at the University, commencing September through to May. Students will also be required to complete a Work Related Learning module in Trimester 3. Year 2 will also consist of attendance on a day release basis at the University commencing in September through to May.

The following table illustrates the structure of the programme and demonstrates progression from a typical HNC in Civil Engineering (120 credits) onto the BSc Civil Engineering Studies. It should be noted that the HNC Civil Engineering programme structure provided below is the Glyndŵr University programme, and will be used as a benchmark for other HNC programmes accepted for entry in terms of content.

| **HNC year 1**<br>**Level 4** | **HNC year 2**<br>**Level 4 & Level 5** | **BSc Civil Engineering Studies Year 1**<br>**Level 5** | **BSc Civil Engineering Studies Year 2**<br>**Level 6** |
|---|---|---|---|
| AURH441<br>Design Principles and Application<br>(15 credits) | AURH444<br>Site Surveying Procedures<br>(15 credits) | AUR523<br>Civil Engineering Maths<br>Sem1/2<br>B Klaveness<br>(20 credits) | AUR606<br>Building Information Modelling<br>Sem 1/2<br>Colin Stuhlfelder<br>(20 credits) |
| AURH442<br>Analytical Methods<br>(15 credits) | AURH449<br>Structural Analysis and Design.<br>(15 credits) | AUR524<br>Water Engineering<br>Sem1/2<br>Louise Duff<br>(20 credits) | AUR607<br>Project Management<br>20 Credits<br>Sem 1/2<br>Louise Duff<br>(20 credits) |
| AURH443<br>Science and Materials<br>(15 credits) | AURH451<br>Civil Engineering Construction<br>(15 credits) | AUR527<br>Science and Materials<br>Sem 1/2<br>Gareth Carr<br>(20 credits) | AUR603<br>Individual Project<br>Sem 1/2<br>Louise Duff<br>(40 credits) |
| AURH450<br>Geology and Soil Mechanics<br>(15 credits) | AURH540<br>Group Project (Level 5, 15 credits) | AUR526<br>Highway Design<br>Sem 1/2<br>Louise Duff<br>(20 credits) | |
| AURH453<br>Management Principles and Application<br>(15 credits) | AURH542<br>Health and Safety(Level 5, 15 credits) | AUR525<br>Work Related Learning<br>Sem 1/2<br>Louise Duff | AUR525<br>Work Related Learning<br>Sem 1/2<br>Louise Duff |

| | | | |
|---|---|---|---|
| | | (20 credits) | (cont throughout the duration of the programme) |

Students joining the BSc programme, will therefore have already achieved an HNC Civil Engineering, and will study 100 credits at Level 5 and 80 credits at Level 6 to be awarded the BSc Civil Engineering award.

**Exit award: Diploma of HE Civil Engineering:**

This is available to students who achieve 120 credits at Level Five or above, and who are unable or do not wish to continue with their studies.

## 17 Programme structure diagram

| | Level Five | | | | | |
|---|---|---|---|---|---|---|
| Trimester 1 & 2 | Mod title | Civil Engineering Maths | Mod title | Water Engineering | Mod title | Science and Materials |
| | Mod code | AUR523 | Mod code | AUR524 | Mod code | AUR527 |
| | New/Exist | New | New/Exist | New | New/Exist | Existing |
| | Credit value | 20 | Credit value | 20 | Credit value | 20 |
| | Core/Opt | Core | Core/Opt | Core | Core/Opt | Core |
| | Mod leader | Brian Klaveness | Mod leader | Louise Duff | Mod leader | Gareth Carr |
| Trimester 1 , 2 & 3 | Mod title | Work Related Learning | Mod title | Highway Design | Mod title | |
| | Mod code | AUR525 | Mod code | AUR526 | Mod code | |
| | New/Exist | New | New/Exist | New | New/Exist | |
| | Credit value | 20 | Credit value | 20 | Credit value | |
| | Core/Opt | Core | Core/Opt | Core | Core/Opt | |
| | Mod leader | Louise Duff | Mod leader | Louise Duff | Mod leader | |

| | Level Six | | | | | |
|---|---|---|---|---|---|---|
| Trimester 1 & 2 | Mod title | Project Management | Mod title | Building Information Modelling | Mod title | Individual Project |
| | Mod code | AUR607 | Mod code | AUR606 | Mod code | AUR614 |
| | New/Exist | Existing | New/Exist | Existing | New/Exist | New |
| | Credit value | 20 | Credit value | 20 | Credit value | 40 |
| | Core/Opt | Core | Core/Opt | Core | Core/Opt | Core |
| | Mod leader | Louise Duff | Mod leader | Colin Stuhlfelder | Mod leader | Louise Duff |

## 18 Intended learning outcomes of the programme

| **Knowledge and understanding** | Level 5 | Level 6 |
|---|---|---|
| A1 | Select and apply appropriate scientific, technical or engineering principles, underpinning relevant current technologies and their evolution. | |
| A2 | Select and justify alternative materials, equipment, tools, processes, products and designs options available for the construction of primary and secondary building elements of buildings or projects, considering issues relating to structural form, safety and the use of sustainable materials. | |
| A3 | Review and apply appropriate techniques, procedures and methods to undertake design tasks and meet briefs, based on key functions and performance, technical appraisal and analysis of data in order to meet user's needs. | |
| A4 | Demonstrate awareness of the framework of legislation to include health, safety, risk and sustainability and apply these through safe systems of work and practices. | |
| A5 | Utilise basic project scope information to apply integrated approach to engineering problems through know how of the relevant technologies and their application ensuring consideration to the design brief, performance requirements, relevant data, cost, safety, programme, sustainability and environmental impact. | |
| A6 | | Design and implement projects with agreed procedures, guidance and specification, synthesising data and concepts to produce safe, innovative solutions to civil engineering problems. |
| A7 | | Demonstrate a critical awareness of extended design and project management techniques including the interaction |

| Knowledge and understanding | Level 5 | Level 6 |
|---|---|---|
| | | of models, documents, sustainability and safety requirements within Building Information Modelling. |

| Intellectual skills | Level 5 | Level 6 |
|---|---|---|
| B1 | Identify problems and apply appropriate methods to identify causes and achieve satisfactory solutions, with due regard to Health and Safety legislation and Sustainability guidance and best practice. | |
| B2 | Use oral, written and electronic methods for the communication in English of technical and other information. | |
| B3 | | Make judgements and justify them using theoretical argument and empirical evidence, to include an evaluation of limited /contradictory information, together with project outcomes. |
| B4 | | Locate, analyse and evaluate relevant information including environmental, sustainability, health, safety, security and risk issues, intellectual property, codes of practice and industry standards and apply it to current issues, reflecting on how it contributes to effectiveness of their current practice within their field of employment. |

| Subject skills | Level 5 | Level 6 |
|---|---|---|
| C1 | Select and apply appropriate key engineering principles in the solution of construction and civil engineering problems to bring about continuous improvement and design solutions according to customer and user's needs. | |
| C2 | Develop the methodology, practice and reporting of laboratory experiments and augment with computer modelling software relevant to the engineering technology discipline. | |
| C3 | Undertake engineering work in a way that contributes to sustainable development. | |
| C4 | Critically evaluate their own professional development needs, draw up a strategy, including a personal learning plan for | |

| Subject skills | Level 5 | Level 6 |
|---|---|---|
| | meeting these to help to improve performance, as a foundation for lifelong learning. | |
| C5 | | Identify, organise and use resources effectively to complete tasks with consideration for technical standards, cost, quality, safely, security and environmental impact. |

| Practical, professional and employability skills | Level 5 | Level 6 |
|---|---|---|
| D1 | Demonstrate an awareness of professional ethics and values together with the duty of care, corporate responsibility and professional code of conduct. | |
| D2 | Demonstrate the capacity for independent and team working, judgement and responsibility and the ability to use and apply appropriate information from technical literature. | |
| D3 | Develop, maintain and encourage effective working relationships with colleagues, clients suppliers or the public, and be aware of the needs and concerns of others, especially where related to diversity and equality | |
| D4 | Monitor, review and evidence their professional development, through their learning plan, learning programme and Professional Body CPD requirements. | |
| D5 | | Design and implement the project within agreed procedures, guidance and specification, synthesising data and concepts to produce safe innovative solutions to civil engineering problems and be able to justify and present project outcomes and communicate designs to technical and non- technical audiences. |

## 19 Curriculum matrix

| *Module Title* | *Core or option* | ***A1*** | ***A2*** | ***A3*** | ***A4*** | ***A5*** | ***A6*** | ***A7*** | ***B1*** | ***B2*** | ***B3*** | ***B4*** | ***C1*** | ***C2*** | ***C3*** | ***C4*** | ***C5*** | ***D1*** | ***D2*** | ***D3*** | ***D4*** | ***D5*** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Civil Engineering Maths | Core | ■ | □ | □ | □ | ■ | □ | □ | ■ | ■ | □ | □ | ■ | □ | □ | □ | □ | □ | □ | □ | □ | □ |
| Water Engineering | Core | ■ | ■ | ■ | ■ | ■ | □ | □ | ■ | ■ | □ | □ | ■ | ■ | ■ | □ | □ | ■ | ■ | ■ | □ | □ |
| Science and Materials | Core | ■ | ■ | ■ | ■ | ■ | □ | □ | ■ | ■ | □ | □ | ■ | □ | ■ | □ | □ | ■ | ■ | ■ | □ | □ |
| Worked Related Learning | Core | ■ | ■ | ■ | ■ | ■ | □ | □ | ■ | ■ | □ | □ | ■ | □ | ■ | ■ | □ | ■ | ■ | ■ | ■ | □ |
| Highway Design | Core | ■ | ■ | ■ | ■ | ■ | □ | □ | ■ | ■ | □ | □ | ■ | □ | ■ | □ | □ | ■ | ■ | ■ | □ | □ |
| Building Information Modelling | Core | □ | □ | □ | □ | □ | ■ | ■ | □ | ■ | ■ | ■ | □ | □ | □ | □ | ■ | □ | □ | □ | □ | ■ |
| Project Management | Core | □ | □ | □ | □ | □ | ■ | ■ | □ | ■ | ■ | ■ | □ | □ | □ | □ | ■ | □ | □ | □ | □ | ■ |
| Individual Project. | Core | □ | □ | □ | □ | □ | ■ | ■ | □ | ■ | ■ | ■ | □ | □ | □ | □ | ■ | ■ | □ | □ | □ | ■ |

## 20 Learning and teaching strategy

The approach to learning and teaching is one which meets the needs of the subject specific knowledge requirements, recognises the functional areas of practice, enables skills development, allows for the practice application of knowledge and encourages students to become effective practitioners.

The learning and teaching methods adopted reflect this in the following ways:

1. Lectures are used to impart key information and showcase new ways of working which will enable students to develop a sound understanding of the principles of their field of study as well as identifying new ways of working. For example there will be key lectures and demonstrations relating to the theory of water engineering which will be augmented by practical laboratory experiments and computer simulations. Within the Civil Engineering Maths module, quizzes and in class tests will be facilitated through the use of Moodle. Within the Building Information Modelling module, key theories and practical application of software will encourage students to develop competencies in this emerging area.

2. Case studies and group working will be used to facilitate application of the principles more widely. They will also be used to prompt discussion and practice problem solving skills. This will also allow students to evaluate the appropriateness of different approaches to solving problems.

3. All students undertaking the Project Management module and Work Related Learning module will be required to reflect on their practice.

4. Employability Skills are embedded through the programme. See Work Related Learning Statement below.

5. The use of learning plans and personal development plans will enable students to reflect on the qualities necessary for employment, requiring the exercise of personal responsibility and decision making. Additionally they allow students to identify the limits of their knowledge and skills and identify strategies for development. Workshops will be delivered early in October and May in the first year in order to prepare students for the self- directed aspect of the Work Related module which will be assessed in semester two of the final year.

6. Assessments are used to facilitate learning as well as providing an indication of student achievement.

7. Site visits will be used to enhance class based activities. This will be relevant in Highway Design, Project Management and Water Engineering.

8. Guest lectures from employers will provide a practice perspective. This is in keeping with the philosophy of other Built Environment programmes, which

places emphasis on the practical application of knowledge and skills.

The balance between class contact / formal teaching and directed study is detailed within the module specifications.

Recognition of the Cohort Identity

There is a need to ensure delivery facilitates an understanding of the interconnectedness of the different roles and professions operating in the Built Environment. For this reason the curriculum will be delivered through a range of modules which are shared by some of the Built Environment programmes with the addition of programme specific modules.

The team recognises that the learning and teaching strategy should reflect the different practice contexts of the students. This is particularly important where students are sharing common modules. In order to achieve this the team have agreed the following strategy:

- To ensure that the teaching methods adopted for classroom and related activity are planned to ensure that tutors use examples drawn from all of the disciplines when explaining the application of theory to practice.

- To ensure that group discussions, case study / problem solving activity relate to and reflect the different aspects of practice represented within the classroom.

- Where guest lecturers are used to deliver modules they will be briefed by the module tutor to ensure that they are aware of the student profile and that the proposed presentation accommodates this.

Use of Virtual Learning Environment

The use of the VLE is a particular strength of this programme and acts as a repository for information for the students which includes module specifications, module guidance, schemes of work, assessment briefs, PowerPoint presentations and lectures notes, video clips and additional reading and links to further areas that can support learning. The VLE is also used for electronic submission of assessments and assessment feedback.

The VLE is a critical resource for this programme as the changing nature of Health and Safety Regulations, Highway Design guidance and the development in Building Information Modelling and associated software means that updated text books are not so readily available. Therefore the VLE is used to signpost students to the latest legislation, policy guidance, Interim advice notes, available software and good practice examples.

With respect to the Civil Engineering Maths module, the VLE provides an opportunity

for students to access online quizzes and in-class tests.

The VLE is also used to create and build a community of scholars through the use of forums which are essentially used to help to maintain contact and direct and promote discussion, as well as a platform to advertise job opportunities and placements.

Progression of Learning

A key consideration for the learning and teaching strategy is that the students who enter the Ordinary Programme at Level 5 will have completed a Higher National Certificate (HNC) in Civil Engineering at Level 4. The approach to learning and teaching will build on the approaches developed within the HNC provision.

In the first year of the BSc (Level 5), subjects are approached from a perspective of practical problem solving underpinned by theoretical understanding of academic and professional application. The Civil Engineering Maths and Water Engineering modules cover problem solving and complex analysis, augmented by laboratory practice and computer simulations. The Highway Design module considers application of current design standards and guidance through production of scheme appraisal documents and sketch designs.

The balance between class contact / formal teaching and directed study seeks to ensure that students develop independent learning skills, develop intellectual skills and apply critical thinking skills. Students are expected, progressively, to participate in identifying their own learning needs, draw up objectives to meet these and produce an individual learning plan. ( Work Related Learning Module )

The final year of the BSc (Level 6) brings students into a range of challenging opportunities that enables them to demonstrate critical awareness of their subject and to demonstrate the ability to deal with complex issues associated with technical aspects and professional practice. The Individual Project, Project Management and Building Information Management Modules are core to this aim.

At all levels use is made of realistic vocational scenarios to link individual modules and aid subject coherence at a level appropriate to the student's development. Personal tutorials support the students and assist them to plan their own work and contribution to learning. Students are also expected to pursue their studies through independent study and research in addition to staff contact time.

## 21 Work Related Learning statement

The students will use their work place as their primary learning opportunity. Therefore there is no placement element within the programme.

The key support provided to students for their work related learning will be their named Work Related learning tutor who will agree individual tutorials with students.

The learning, teaching and assessment strategy reflect the challenges of working in the real world with a mixture of coursework, project work, in class tests, simulations and presentations.

There is one distinct Work Related Learning Module which runs throughout the duration of the programme and is assessed in the final year, however, all of the modules within the programme have an element of work related learning as they either require students to apply their learning to their practice or provide underpinning knowledge and evidence for the specific work related Learning modules.

Examples of specific modules which incorporate learning include:

- Work Related Learning – Students will be asked to identify their own learning needs, drawn up objectives to meet these and produce an individual learning plan which focus on the learning objectives of the module, together with those required by the Joint Board of Moderators. They will also be expected to record their CPD activity and evaluate and reflect on their development and consider future requirements

- Project Management – Students will be required to demonstrate how the principles of project management can be applied to either their or their organisation's practice. This may be evidenced via assessment submissions in which work based projects are re-evaluated in the context of the learning objectives of the module.

- Individual Project. Students may choose to undertake a project related to their work place or to develop their knowledge of a particular area of practice. This will provide students with an opportunity to enhance the skills they may need for creating future reports and membership review documentation.

As part of their preparation for completing the Work Related learning portfolio, the module tutor will work with students and their employers in order to identify work related learning opportunities and to identify a strategy (Learning Plan which incorporates JBM learning objectives for ensuring that the students have access to sufficient work related experiences in order to full fill the requirements of the module and the requirements of the JBM further learning. The module tutor is also an Institution of Civil Engineers registered Mentor and is able to provide specific guidance to help students make the most of their training and assist with the preparation and recording of Individual Professional Development as required by the Membership review process.

Students will be asked to share their draft learning plan with their employer in order to ensure that the plan is realistic within the context of their own work environment, taking into account the expectations of the Joint Board of Moderators Guidance and the requirements to meet their learning objectives.

Student feedback will be gathered through questionnaires at the end of the module.

**Student responsibilities**
All students in undertaking work related learning will have a responsibility to themselves, to their employers, and to any organisation affording them a work related learning opportunity. All students will be advised about the need for confidentiality both in discovering and reporting on documents. Confidentiality has to be considered in two contexts. Individual details must not be identified in any documents to preserve the individual's right to privacy under the Data Protection Act 1998. In addition any material of a sensitive nature may not be used. Issues of confidentiality and ethical working will be addressed within the Work Related Learning module. Additionally, a section in the programme handbook will provide guidance and direction on this issue. This will be reinforced with the inclusion of a specific assessment criterion.

**Employer Role**
All employers will be asked to confirm that they consent to the student undertaking the programme and will offer relevant support to the student. Although the Programme Team meet monthly in order to monitor programme performance, the work related module tutor will liaise with employers on a three monthly basis in order to discuss student progress in meeting the outcomes of the learning plan.

## 22 Welsh medium provision

The programmes will be delivered through the medium of English. Students are entitled to submit assessments in the medium of Welsh.

## 23 Assessment strategy

The assessment strategy for the programme is informed by professional body requirements, relevant QAA benchmark statements and good practice in assessment.

The overall strategy for the programme as a whole is to ensure that assessment provides the opportunity for students to:

- demonstrate achievement of the learning outcomes at Level 5 & 6
- demonstrate achievement at the threshold and exemplary levels
- reflect the requirements of practice
- increase their employability skills
- determine their own learning needs and draw up strategies for meeting them.

Assessment will be sufficiently varied in order to accommodate different learning styles and will provide opportunities for diagnostic, formative and summative feedback.

<u>Assessment Practices and Processes</u>

<u>Assessment Criteria</u>

The standard of all assessment tasks will reflect the QAA Characteristics Feb 2015.

The assessment criteria for each module will be contextualised to reflect the learning outcomes of the module.

Feedback on Assessment

Students will receive written feedback within the timescales laid down by Glyndŵr University. All students receive individual written feedback on their assessed work. This will be provided on a standard form, which includes feedback on performance and identifies areas for improvement and development.

Plagiarism

Where practicable, Turnitin will be used via the VLE, as a tool to support students to develop their academic writing style as well as to detect plagiarism or collaboration.

Double Marking and Moderation

All module assessments will be internally verified with a sample being moderated by the External Examiner in accordance with Glyndŵr University's Regulatory Requirements.

Extenuating Circumstances and Deadlines for Submission

Students will be given a schedule of assessment submission dates for the year. They will be informed of the penalties which apply for non-submission. Students will be made aware of the procedure relating to extenuating circumstances and will be encouraged to work closely with their tutors should they require support and guidance on this matter.

The following Diagram provides an overview of module assessments and indicative submission dates.

| Module Code & Title | Assessment Type and Weighting | Assessment Loading | Indicative Submission Date |
|---|---|---|---|
| AUR527<br>Science and Materials | In-class test 50%<br>Case Study 50% | 2hrs<br>2000 | December<br>May |
| AUR524<br>Water Engineering | In-class test 60%<br>Presentation 40% | 2hrs<br>15 mins | January<br>May |
| AUR523<br>Civil Engineering Maths | In–class test 50%<br>In–class test 50% | 2hrs<br>2hrs | December<br>May |
| AUR525<br>Work Related Learning | Portfolio 100% | 4000 | May |
| AUR526<br>Highway Design | Report 40%<br>Project 60% | 1500<br>2500 | December<br>April |

| | | | |
|---|---|---|---|
| AUR607<br>Project Management | Essay 40%<br>Report 60% | 1500<br>2500 | December<br>April |
| AUR606<br>Building Information Modelling | Presentation 20%<br>Essay 30%<br>Project 50% | 1000<br>1000<br>2000 | November<br>January<br>April |
| AUR614<br>Individual Project | Report 70%<br>Presentation 30% | 7000<br>20 mins | May |

## 24 Assessment regulations

The regulations for Bachelor Degrees, Diplomas and Certificates apply to this programme.

### Derogations

None

### Non-credit bearing assessment

N/A

### Borderline classifications (for undergraduate programmes only)

N/A

### Restrictions for trailing modules (for taught masters programmes only)

N/A

## 25 Programme Management

### Programme leader

Louise Duff

### Programme team

Dr Gareth Carr
David Cheesbrough
Brian Klaveness
Jane Richardson
Dr Colin Stuhlfelder

### Quality management

The Programme Leader will take overall responsibility for quality assurance and enhancement in line with the expectations detailed within the University's Programme Leaders Handbook.

Each module will be assigned to a named Module Leader who will take responsibility for the delivery of the learning, teaching and assessment of the module. In keeping with the policies and procedures agreed by the University, the key mechanism for quality control and enhancement at programme level will be the processes and procedures associated with the annual monitoring cycle which is formalised through the production of the Annual Monitoring Report (AMR). The AMR evaluates the programme delivery drawing on feedback from students, the professional body, External Examiners and Employers. Specific methods used for consulting students include the completion of Module Evaluation Questionnaires, Staff Student Consultative Committees

(SSCC's) and end of year group feedback sessions. The outcomes of this report are scrutinised and agreed at Programme Level with subsequent monitoring and review being formalised though the School Board and the Standards and Quality Committee.

Feedback will be provided to students in the following ways:

Minutes and responses to SSCC's will be posted on the VLE.
External Examiner reports and any associated actions arising will be presented to students in the November SSCC.
An overview of the draft AMR and associated actions will be presented to the SSCC in November.
An update on achievement of AMR Action plans will be provided in the March SSCC.

The Programme Team meet monthly in order to monitor programme performance. Issues discussed include recruitment and retention, student feedback, assessment calendars, approaches to teaching and learning, coordination of site visits and guest lecture plans. Peer observation is undertaken; this includes classroom based observation as well as peer review of marking, assessment and feedback.

Whilst the Programme Leader is responsible for day to day management of the programme, Personal Tutors will ensure the welfare and development of each student on the programme throughout their period of study.

The Built Environment Employers and Practitioners Forum is available to advise on vocational relevance, employability issues, currency of curriculum content and a range of professional practice issues that are associated with approval of Further Learning packages and this is facilitated through a programme of breakfast meetings.

### Research and scholarship activity

The team are all members of various professional bodies including Institution of Civil Engineers, Chartered Institute of Building, Chartered Institute of Housing, Chartered Institute of Architectural Technologists and Royal Institute of British Architects. The team members participate at different levels within these; including being part of committees and task groups.

Furthermore, active engagement with these accrediting bodies also supports the network of industry contacts available to the team and then, onwards, to the students. While the benefits of this for job opportunities are obvious, it also opens up further opportunities for visiting active sites to underpin the scenarios and simulations used in the teaching of these programmes, as well as the chance to invite professionals in to share their experiences and possibly review presentations and work.

The team also seeks to maintain course currency by engaging with other educational institutions and industry bodies, working closely with both Coleg Cambria in North East Wales, and Grŵp Llandrillo Menai in North West Wales. At these colleges Glyndŵr University HNC's in Civil Engineering are offered under franchise arrangements. The various teams are working to coordinate marketing and to ensure a direct route from BTEC L3 in Civil Engineering, through to

L4 HNC in Civil Engineering, through to BSc Civil Engineering Studies. With regards to industry bodies, the team are involved with Principality and National training boards and schemes, as well as active Board Members with local and national sector organisations.

**Membership of Professional Bodies**

| Programme team | Institution of Civil Engineers | Chartered Institute of Builders | Institution of Engineering Technology | Institute of Electrical & Electronic Engineers. | Chartered Institute of Architectural Technologists | Royal Institute of British Architects | Chartered Institute of Housing. |
|---|---|---|---|---|---|---|---|
| **Louise Duff** | **MICE ,C.Eng ICE Registered Mentor** | **ICIOB** | | | | | |
| **Dr Gareth Carr** | | | | | | **RIBA Registered with Architects Registration Board** | |
| **David Cheesbrough** | | **MCIOB** | | | | | |
| **Brian Klaveness** | | | **MIET** | **MIEEE** | | | |
| **Jane Richardson** | | | | | | | **FCIH** |
| **Dr Colin Stuhlfelder** | | | | | **MCIAT** | | |

As members of their respective professional bodies, the Programme Team are committed to undertaking a minimum level of CPD.

**Research and Consultancy Activity:**

Collectively the team are active in undertaking a range of activity which has underpinned their teaching. This includes;

- Guest speakers on the incremental uptake of Building Information Modelling across North Wales
- Exploration of the use of technology to enhance the design process
- Completion of PhD focusing on the development of housing for the working classes
- On-going MSc/PhD relating to the influence of mine agents on the working practices of lead mining in Flintshire 1845-1957.
- On-going Professional Doctorate relating to the Development of a Common approach to Accessing Social Housing.2011-2016
- Completion of Local Housing Market Assessments for 4 Local Authorities
- Completion of Local Housing Strategy for 2 Local Authorities
- A Review of Community Facilities on behalf of the Community Council. 2012
- A review of Single Pathway to Supported Housing 2014/15

**Other External Activity includes:**

- Membership of North Wales ICE Committee

- Membership of North West CIAT Committee
- Membership of North Wales CIOB Committee
- Regional and National BIM forums
- ERASMUS visits
- CITB Construction Ambassador
- Support with  ICE Bridge to Schools
- Engagement in successful ICE Quest Technician applications
- Facilitators of Construction related CPD events
- Chairing Partnership Steering Group – Single Access Routes to Housing
- Presentation at Conferences Teaching Related Activity
- External Examiners on related programmes
- Assessors on Professional Body Panels
- Engagement in Peer Observation
- Membership of the Higher Education Academy

## 26 Learning support

### Institutional level support for students

The University has a range of departments that offer the support for students as:

- Library & IT Resources
- The Assessment Centre
- Disability Support Team
- Irlen Centre
- Careers Centre and Job Shop
- Zone Enterprise hub
- Chaplaincy
- Counselling & Wellbeing
- Student Funding and Welfare
- International Welfare
- Student Programmes Centre
- Glyndwr Students' Union

### School support for students

All students will be provided with a Personal Tutor and will have opportunities to discuss opportunities for personal development planning.

### Programme specific support for students

On an individual level, students will be supported in their learning in the following ways:

Students will be provided with a programme handbook which details their programme of study and signposts them to University level support mechanisms, policies and regulations.

Student academic support needs will be met in the following ways.

- Individual tutorials with academic tutors to identify individual learning needs and

aspirations which will then be monitored throughout the programme.

- Where necessary the team will make reasonable adjustment to assessments in order to reflect the needs of students with support needs.
- Tutors will use the VLE as a repository for course material and are actively engaging in developing opportunities to use this to provide feedback to students, promote online discussion and promote a VLE academic community.

Pastoral support will be provided by a named Personal Tutor who will remain with them for the duration of their study. All students have an entitlement of at least one tutorial with a personal tutor for each semester. A dedicated Personal Tutor section has been created on the Built Environment VLE and this is used to communicate tutor sessions and disseminate information relating specifically to this pastoral role. Should a student wish to change their Personal Tutor during their period of study this can be accommodated.

The University study skills tutor will be available to offer support and guidance to students for on-going individual and/or small group support on a self-referral basis throughout the year including the summer period.

Induction programmes will include Study Skills and IT and the VLE.

Each programme of study will have arrangements in place for a programme student representative. This representative will be invited to attend Programme meetings and where appropriate, relevant Institutional Meetings.

## 27 Equality and Diversity

Wrexham Glyndŵr University is committed to providing access to all students and promotes equal opportunities in compliance with the Equality Act 2010 legislation. This programme complies fully with the University's policy on Equality and Diversity, ensuring that everyone who has the potential to achieve in higher education is given the chance to do so.