WARWICKSHIRE COLLEGE
UNIVERSITY
CENTRE

Programme Specification

BSc (Hons) Sustainable Horticulture Technology (Agritech)

March 2023

Programme Specification

1	**Awarding Institution**	Warwickshire College
2	**Teaching Institution**	Warwickshire College and University Centre
3	**Final Award Title**	BSc (Hons) Sustainable Horticulture Technology (Agritech)
4	**Interim Award Titles**	FdSc Sustainable Horticulture Technology (Agritech)
5	**Modes of Attendance**	Full-time, part-time
6	**Pathways available**	Integrated Foundation Year at level 4 (120 credits) Foundation Degree at level 5 (240 credits) 'Top Up' Degree at level 6 (120 credits at level 6) BA (Hons) 3-year degree levels 4-6 (360 credits)
7	**Locations of Study**	Pershore Campus
8	**UCAS Code**	*Institution Code:W25* *Course Codes:* Agri-Tech (Horticulture) Foundation Degree (FdSc) - Full Time 2yrs (D600) Agri-Tech (Horticulture) BSc (Hons) - Full Time 3yrs (D601) Agri-Tech (Horticulture) with Integrated Foundation Year (BSc) Hons - Full Time 4yrs (D602) Agri-Tech (Horticulture) BSc (Hons) Level 6 (Top-Up) - Full Time 1yr (D603) Agri-Tech (Horticulture) BSc (Hons) - Part Time 4-6yrs
8	**QAA Benchmark Statements**	Subject Benchmark Statement for Agriculture, Horticulture, Forestry, Food, Nutrition and Consumer Sciences (October 2019)
9	**Accreditations**	
10	**Other External Factors**	
11	**Date of Approval**	March 2023
12	**Date for Next Review**	2026/27
13	**Dates of Revision**	

14 Qualification Descriptor for the Programme

The qualification descriptor for this higher education qualification at Level 6: Bachelors' degree with honours in AgriTech (Horticulture) Science and Technology.

Bachelors' degrees with honours are awarded to students who have demonstrated:

- A systematic understanding of AgriTech (Horticulture) including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of the controlled environment agriculture and general horticulture sector.
- An ability to deploy accurately established techniques of analysis and enquiry within AgriTech (Horticulture).
- Conceptual understanding that enables the student:
    - To devise and sustain arguments, and/or solve problems, using ideas and techniques, some of which are at the forefront of the controlled environment agriculture and general horticulture sector and;
    - To describe and comment on particular aspects of current research, or equivalent advanced scholarship in controlled environment agriculture and general horticulture sector
- An appreciation of the uncertainty, ambiguity and limits of knowledge
- The ability to manage their own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to AgriTech (Horticulture).

Typically, holders of this qualification will be able to:

- Apply the methods and techniques they have learned to review, consolidate, extend and apply their knowledge and understanding, and to initiate and carry out projects
- Critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete) to make judgements and to frame appropriate questions to achieve a solution – or identify a range of solutions to a problem
- Communicate information, ideas, problems and solutions to both specialist and non-specialist audiences

And holders will have:

- The qualities and transferable skills necessary for employment requiring:
    a. The exercise of initiative and personal responsibility
    b. Decision-making in complex and unpredictable contexts
    c. The learning ability needed to undertake appropriate further training of a professional or equivalent nature.

15 Educational Aims and Intended Learning Outcomes of the Programme

The overall educational aims (or purpose) of this programme are as follows:

The future of food production and urban horticulture will use sophisticated technologies such as robots, temperature and moisture sensors, aerial images, and GPS technology. These advanced devices and precision horticulture and robotic systems will allow growers to be more profitable, efficient, safe, and environmentally friendly which will improve the sustainability of horticultural production.

To support this new and exciting sector the course aims to provide students with the necessary skills and knowledge to appreciate and contribute to the development and expansion of the AgriTech horticultural sector. The modules and assessment will provide them with the knowledge and skills needed to succeed in the contemporary agricultural and horticultural industries. The changing global agriculture sector is meeting the challenges of production by means of digital, mechanical, and biochemical technological innovations, allowing producers to make informed decisions using sensors, communications, and data analytics. As the industry evolves it is important that students have a knowledge of robotics, advanced machinery, monitoring technologies and genetics, to reflect the automation of tasks now taking place in the land based industries. The impact of these technologies also requires an understanding of the wider sustainability context as applied to intensive food production systems. Improving the sustainability of horticultural production will be a major aspect of the taught modules. It is important therefore that students have the opportunity to engage with the current practice within the sector to understand the context of the food and horticulture supply chain. To this end, they will encounter and investigate the contemporary industry through work-based learning culminating in an applied dissertation project in your final year.

- equip students with skills and knowledge to prepare them for a career in controlled environment agriculture/horticulture (AgriTech) or the wider employment opportunities of land-based management
- develop the students ability to be proactive in seeking business opportunities in this rapidly expanding sector.
- develop each student's intellectual powers, their understanding and judgement, their ability to see relationships within what they have learned and to analyse the field of study in a broader perspective;
- Develop students as critical, independent learners in order to prepare them for personal, social and economic success
- Provide theoretical understanding that enables the student:
    - o To devise and sustain arguments, and/or solve problems, using ideas and techniques, some of which are at the forefront of the AgriTech sector.
    - o To describe and comment on particular aspects of current research, or equivalent advanced scholarship in Business and Management

- Enable students to manage their own learning, and to make use of scholarly reviews and primary sources
- Develop students' ability to apply their knowledge and skills to new situations, including in the workplace.

The intended learning outcomes for the BSc AgriTech (Horticulture) Science and Technology Pathway are shown in sections 15.1 to 15.4 below, grouped under the following headings

- Knowledge and understanding of the subject
- Cognitive skills
- Practical and/or professional subject skills
- Transferable skills and the WCUC T-shaped employability behaviours
- Professional competencies (set by PSRBs, where relevant)

The knowledge and understanding of the subject, cognitive skills and practical/professional subject skills are based upon the Subject Benchmark Statement: Subject Benchmark Statement, Agriculture, Horticulture, Forestry, Food, Nutrition and Consumer Sciences: (October 2019).

Warwickshire College and University Centre believes that students should be equipped with an entrepreneurial mind set – to be confident, innovative, resilient, enterprise-aware and willing to 'have a go' – in order to prepare them for personal, social and economic success. The college uses a T-Shaped employability behaviour model as a framework to develop transferable skills.

The T-Shaped framework connects this breadth of personal capabilities and qualities with a depth of technical competence through the development of three core behaviours: personal development, social skills and enterprise. The core enterprise behaviours include personal qualities for success in the workplace of the future; capacities to find, make and manage networks and collaborations; knowledge and skills in vocational and academic areas and aptitude for driving successful enterprises.

The T-Shaped skills are as follows (see the platinum level of the T-Shaped employability framework, available in your Course Handbook, for more information):

T-Shaped Framework		
Personal Development	**Enterprise**	**Social Skills**
● Resilience ● Focus and Drive ● Reliability ● Reflectiveness ● Adaptability	● Creativity ● Initiative ● Problem solving ● Risk taking ● Business awareness	● Teamwork ● Networking ● Empathy ● Communication ● Leadership

15.1 Knowledge and Understanding of the Subject	
On successful completion of the programme a student should be able to demonstrate knowledge and understanding of:	
KU1	Graduates have a well-grounded understanding of the science and management of sustainable production systems that comprise the broad agricultural or horticultural industries within the global socioeconomic and environmental contexts required by society.
KU2	Graduates have a well-grounded understanding of the social, environmental, economic, legal, scientific, technological and sustainability principles underlying the business management of farm or horticultural enterprises.
KU3	Graduates select, apply and evaluate a wide range of concepts, theories and methods drawn from the constituent subjects of their degree course to agricultural or horticultural enterprises.

15.2 Cognitive Skills	
On successful completion of the programme a student should be able to:	
CS1	recall knowledge based on the directly taught course with some evidence of wider enquiry
CS2	demonstrate understanding of subject specific theories, paradigms, concepts and principles, as well as some understanding of more specialised areas
CS3	demonstrate ability to define problems, and devise and evaluate solutions to both routine and unfamiliar problems
CS4	analyse, synthesise, summarise and evaluate information
CS5	integrate lines of evidence from a range of sources to formulate and test hypotheses
CS6	demonstrate the ability to consider issues from a range of multidisciplinary and interdisciplinary perspectives and to draw on appropriate concepts and values in arriving at a critical assessment
CS7	critically appraise academic literature and other sources of information.

15.3 Practical and/or Professional Subject Skills	
On successful completion of the programme a student should be able to:	
PS1	recognise and be able to comment on the moral and ethical issues associated with the subject
PS2	plan, conduct and present an independent investigation with some reliance on guidance
PS3	use appropriate laboratory and field equipment competently and safely select and apply a range of appropriate methods to solve problems

PS4	describe adequately and record accurately in the field and laboratory
PS5	use appropriate technology to address problems efficiently
PS6	interpret practical results in a logical manner
PS7	present research findings effectively and appropriately in a number of formats.
PS8	understand and be able to apply professional codes of conduct
PS9	accept responsibility for their own learning
PS10	identify and work towards targets for personal, career and academic development
PS11	take a responsible, adaptable and flexible approach to study and work
PS12	develop the skills necessary for self-managed and lifelong learning (that is, independent study, time management, organisational skills)
PS13	analyse personal strengths and weaknesses

15.4 Transferable Skills and T-Shaped Employability Behaviours	
On successful completion of the programme a student should be able to:	
TS1	Communicate effectively to a range of audiences using the appropriate format and, following evaluation, identify methods for improvement
TS2	Evaluate and, through reflection, improve own confidence to take initiative
TS3	Evaluate own ability to reflect meaningfully and honestly on personal performance and review strategies for using feedback from self and others to improve
TS4	Act entrepreneurially to generate, develop and communicate ideas

16 Relationship with External Reference Points

The aims and outcomes of this award are clearly in alignment with the sector-recognised standards that relate to general ongoing condition B5 (Sector-recognised standards) as part of the general ongoing conditions of registration with the Office for Students.

This programme is designed for the provision of key understanding, knowledge and skills as identified in the QAA's Subject Benchmark Statement for Agriculture, Horticulture, Forestry, Food, Nutrition and Consumer Sciences October (2019). The relevant understanding, knowledge and skills from the Benchmark Statement have been mapped to the core modules at the end of this document.

The programme is also mapped to the descriptor for a higher education qualification at Level 5: Foundation Degree.

17 Course Credit and Outcome Requirements

Warwickshire College and University Centre higher education programmes are based on a credit-accumulation system where 1 credit represents 10 hours of student study time. Modules are normally 20 credits or multiples thereof. Modules are also at different levels (4, 5 and 6) according to the intellectual challenge. Courses leading to specific awards include core modules. To achieve a named award, students must pass all core modules.

BSc AgriTech (Horticulture) Science and Technology (honours degree)
To be awarded an honours degree, students must successfully achieve a total of 360 credits of which a minimum of 100 credits must be at level 6, a minimum of 100 credits must be at level 5 and a minimum of 100 credits must be at level 4.

BSc AgriTech (Horticulture) Science and Technology (honours degree level 6)
To be awarded a 'top up' honours degree, students must successfully achieve a total of 120 credits at level 6.

Students who exit the programme before achieving the full award may be eligible for an interim award as follows.

- **BSc AgriTech (Horticulture) Science and Technology (non-honours degree)**
  Students will have obtained a minimum of 300 credits, of which 80 must be at level 6, at least 80 must be at level 5 and at least 100 must be at level 4.

- **BSc AgriTech (Horticulture) Science and Technology (non-honours degree top-up)**
  Students will have obtained a minimum of 100 credits at level. Non-WCUC top up students should study the Research Design and Analysis module unless they have a similar module in their existing qualification.

- **BSc AgriTech (Horticulture) Science and Technology (Foundation Degree)**
  To be awarded with a foundation degree, students must successfully achieve a total of 240 credits of which a minimum of 100 credits must be at level 4 and a minimum of 120 credits must be at level 5. The 100 hours of work-based and placement learning must be completed.

- **BSc AgriTech (Horticulture) Science and Technology (Certificate of Higher Education)**
  Students will have obtained a minimum of 120 credits, of which 100 must be at level 4.

17.1 Course Work-Based and Placement Learning (WBPL) Requirements

Work-Based and Placement Learning is a fundamental and mandatory aspect of all Warwickshire College degrees. Students are expected to complete 100 hours of work-based or placement learning by the end of Level 5.

Work-based and placement learning is normally undertaken across a diverse range of settings, from farm based locations, fully controlled environment agriculture, suppliers and packing organisations.

The college has its own AgriTech centre which performs as a research location for external organisations and for the growing of our own crops. Students will be expected to get involved in the work in the centre and use this site to improve and develop practical skills.

We have close links with employers that have been formed and the department has earned a notable reputation.

Assignments have been designed for BSc (Horticulture) to address skills in leadership, quality assurance and management strategies involved in land based and growing environments. In order to meet the learning outcomes students need to hold certain discussions with employers to gain personal insight into business management and strategies that are deployed in the workplace. This also reinforces the student's awareness of management responsibilities. Students are also encouraged to engage in shared peer setting visits.

The BSc in Horticulture n provides not only a good base for progression but also for enhanced employment opportunities within the sector. Work-based and placement learning is an integral part of the course structure and is valued and assessed

17.2 Course Structure and Distinctive Features

The course structure provides for the student to develop employability within a horticulture, controlled environment agriculture sector. The curriculum is designed around the vocational experience of the student with a theoretical underpinning based on current critical thinking in horticulture and controlled environment agriculture sector employment roles across many organisations.

The Controlled Environment Agriculture sector is a complex and fast developing industry. The first year focuses on an introduction to the foundations of academic skills, the appreciation of the concepts of sustainability and urban horticulture. The principles of soil science, plant science, physiology and the fundamentals of electrical engineering are explored in order to build knowledge, application skills and therefore confidence in the student. This will also give them the building blocks to contribute to organisations. The principles of science and technology prepares the student for what to expect in the workplace and how to use the work placement opportunities as a springboard to the start of a successful career in this exciting

sector. Students will develop laboratory skills, allowing them to take part in research projects and work safely and efficiently in the AgriTech laboratory.

The second year then builds on the first by exploring the importance of the application knowledge gained in the first year, developing the practical skills identifying the impact of crop pests and diseases along with the use of data and technology to manage crop production. Food production is discussed within a wider sustainability context of waste production and energy inputs. Technology and the application of technology to support growth and research is incorporated into the syllabus, work based and Placement Learning allows the student to apply their knowledge and skills in a work context, to critically evaluate the appropriateness of different approaches to solving problems and to apply their knowledge and skills to new situations.

The third year provides an overview of management functions within industry and using technology and computer programmes to aid with management decision making. Developing skills to interpret data, analyse and draw conclusions. Leading Successful Business Performance links to the two important skills and behaviours of a great leader which is their leadership style while developing employees to realise their own and therefore the organisation's potential. The Dissertation will allow the student to cement the 3 years of their study by researching and answering a horticultural related question and developing a viewpoint that may support the wider horticultural community.

The course map at 17.3, below, gives basic details for all modules relating to the award including module codes for any pre-requisite or co-requisite modules. The course map also states whether each module's status is mandatory (M) or optional (O) for the award.

17.3 Course Map – Programme Structure

Level 4

Module Code	Module Title	Credit Value	Pre-req Co-req	Delivery	Module Status
490HOR	Academic Study Skills, Employability and T-Shaped	20	None	Year 1	M
402HOR	Introduction to Plant Pathology	20	None	Year 1	M
404HOR	Plant and Soil Science Technology	20	None	Year 1	M
406HOR	Agronomy and Plant Health	20	None	Year 1	M
414HOR	Control of Horticultural Technologies	20	None	Year 1	M
420HOR	Horticulture Engineering Technology	20	None	Year 1	M

Level 5

Module Code	Module Title	Credit Value	Pre-req Co-req	Delivery	Module Status
590HOR	Work-based and Placement Learning	20	None	Year 2	M

502HOR	Introduction to Aerial Surveying and Technologies	20	None	Year 2	M
504HOR	Horticulture Soilless Technology	20	None	Year 2	M
509HOR	Research Design and Analysis	20	None	Year 2	M
522HOR	Introduction to Robotics in Horticulture	20	None	Year 2	M
523HOR	Urban Horticulture	20	None	Year 2	M

Level 6

Module Code	Module Title	Credit Value	Pre-req Co-req	Delivery	Module Status
601HOR	Autonomous Horticulture	20	Pre-req 522HOR	Year 3	M
602HOR	Applied Sustainable Land Management	20	None	Year 3	M
603HOR	Agricultural and Horticultural Data Systems	20	None	Year 3	M
604HOR	Pathogen Interactions in Co-infected Plants	20	None	Year 3	M
657HOR	Dissertation	40	None	Year 3	M

18 Learning & Teaching Methods

This programme has been designed for students to develop and experience a variety of harmonising approaches to learning and teaching and a good balance of activities. Students will develop a range of academic, cognitive, practical and transferable skills to prepare them for further study and their future employment. The College places emphasis on enabling students to develop the independent learning capabilities that will equip them for lifelong learning and future employment, as well as academic achievement. A mixture of independent study, teaching and academic support from Library Services, and the personal academic tutoring system enables students to reflect on progress and build up a profile of skills, achievements and experiences that will help them to flourish and be successful graduates.

Teaching and learning methods for the course programme are designed to develop students' Understanding of how theory – current critical thinking, creativity and practice are inextricably linked together. The key aspect of the course is a progressive development of knowledge and relevant skill sets to maximise employability within the specific field. The student develops the ability to use evidence-based research to construct well-reasoned discussions and plans that are smart in their formulation. To achieve this, extensive use will be made of formative assessment. The assignments are designed to be approached via a progressive building of knowledge and skills, for which the various formative assessments form stepping stones to the summative assessment. The assignments are therefore mile-markers in the students' learning of new skills and knowledge.

The methods used will vary in terms of delivery depending on the nature of the module in question, but students will experience technical demonstrations, lectures, seminars, group and individual tutorials, specific technical workshops, peer assessment and independent research.

Scheduled learning and teaching activities within a module are usually categorised by Content

Delivery (including sign posting for guided learning by the use of periodical reading lists); active learning engagement (either individually or in groups using compare & contrast and visualisation to interpret understanding of the content); and Seminar/ discussion work, usually led by the students with direction from the lecturer with academic material.

Learning and teaching will be supported by the College's virtual learning environment, Google Classroom. This will enable students to access lecture notes and supporting academic resources/ other reference material at any time. Students are also encouraged to use appropriate social media platforms to develop discussions outside of the classroom and in preparation for lessons using flipped-learning techniques.

The curriculum has been developed and is assessed regularly with local businesses and an appointed industry advisor to ensure that curriculum is developed in response to local and regional economic needs. Lecturers are encouraged to update their scholarly activity with work within industry. Lecturers have also become fellows and senior fellows of the Higher Education Academy which supports the objective of supporting quality teaching and scholarship through training and staff development.

Contact time
A typical 20-credit module will normally have 60 hours of timetabled teaching in lectures, seminars and practical sessions.

Independent self-study
In addition to contact time, for each module, students are expected to undertake regular self-study plus additional preparation for assessments.
Students are expected to work independently for 140 hours per module. Independent learning is supported by the College's virtual learning environment, Google Classroom and the electronic learning resources available from the College libraries.

19 Assessment

The approach to assessment has been designed to provide students with a variety of challenges appropriate for undergraduate level work. Assessment is constructed in such a way that a student's knowledge and understanding of each module studied during the course is assessed.

Summative assessment items are scheduled and students will receive an assessment plan at the beginning of each academic year. Detailed assessment briefs are given to students at the start of a module as part of the module guide.

The summative assessment for each module will be scheduled to follow at least one aspect of formative assessment per assignment. Formative assessment will be encouraged to be used from a variety of sources with peer review featuring significantly. Self- reflection to formatively

assess a student's own progress will also be used, via various exercises of compare and contrast and mile-marker evaluation.

Seminar discussion groups are used to assimilate published research and discuss findings or develop abstracts of published work. Students will also undertake peer review activities, technological problem solving and group presentations in lecture and board room environments.

The table below 19.1 shows the weighting of different assessment activities used across the programme(s).

19.1 Assessment Grid

Level 4

Module Code	Module Title	Written Assignment /Report	Lab Book/ Practical	Second Written Assignment	Time Constrained Assessment	Presentation	Investigative assignment	Review	Rocket Pitch
490HOR	Academic Study Skills Employability and T-Shaped	✔						✔	✔
402HOR	Introduction to Plant Pathology	✔	✔				✔		
404HOR	Plant and Soil Science Technology	✔			✔				
406HOR	Agronomy and Plant Health	✔	✔						
414HOR	Control of Horticultural Technologies	✔		✔					
420HOR	Horticulture Engineering Technology	✔				✔			

Level 5

Module Code	Module Title	Written Assignment /Report	Portfolio	Exam	Time Constrained Assessment	Proposal	Investigative assignment	Presentation
590HOR	Work-based and Placement Learning		✔					✔
502HOR	Introduction to Aerial Surveying and Technologies	✔				✔		
504HOR	Horticulture Soil-less Technology	✔		✔				
509HOR	Research Design and Analysis	✔				✔		
522HOR	Introduction to Robotics in Horticulture	✔				✔		
523HOR	Urban Horticulture	✔			✔		✔	

Level 6									
Module Code	**Module Title**	**Written Assignment /Report**	**Practical**	**Practical Handbook**	**Proposal**	**Presentation**	**Exam**	**Protocol**	**Viva**
601HOR	Autonomous Horticulture	✔	✔						
602HOR	Applied Sustainable Land Management	✔		✔					
603HOR	Agricultural and Horticultural Data Systems	✔			✔				
604HOR	Pathogen Interactions in Co-infected Plants	✔					✔		
657HOR	Dissertation	✔				✔		✔	✔

20 Regulation of Assessment

This course uses the Warwickshire College and University Centre higher education (HE) academic regulations for bachelor degrees awarded by Warwickshire College. The full Warwickshire College and University Centre HE academic regulations can be found in the HE area of the Warwickshire College intranet.

WCUC will ensure that it meets the requirements of the Office for Students quality and standards conditions, and with regard to assessment, the College will meet Condition B4: Assessment and awards. The College will ensure that students are assessed effectively; each assessment is valid and reliable; the academic regulations are designed to ensure that relevant awards are credible and are designed to endure the effective assessment of technical proficiency in the English language and relevant awards granted to students are credible at the point of being grated and when compared with those granted previously.

Marks are provided along with coursework feedback within four term-time weeks of submission or before the next assessment in the same subject is due, whichever is the sooner. All marks remain provisional until they have been ratified by the Subject Assessment Board. The overall grade for a whole module will be determined by the Subject Assessment Board which will consider the overall grade profile of all assessments for that module.

If an overall module grade does not meet the minimum pass grade, then the relevant Assessment Board will make a decision relating to the student's eligibility to reassess or restudy the module in line with the academic regulations. Individual assessments cannot be resubmitted to improve individual grades. A Course Assessment Board will make decisions about whether students have satisfied all of the requirements for progression or final award grades.

Should a student fail a module then the Course Assessment Board will notify the student of their entitlement to be reassessed or to restudy the module in the following year. Students will be advised of the reassessment procedures which normally require students to carry out and resubmit work at the end of the summer. Students should ensure that they are available to carry out reassessments at this time should the need arise.

Inclusion policies and mitigating circumstances procedures are available on the WCG intranet – individual cases are considered based on this framework and passed through a HEQAS board (Higher Education Quality and Academic Standards).

21 Entrance Requirements

The Warwickshire College HE Admissions Policy is available on the College external website.

UCAS entry profiles may be found by searching for the relevant course on the UCAS website, then clicking on 'Entry profile'.

Standard entry requirements
The standard entry requirements for a Warwickshire College undergraduate degree at level 4 is a minimum of two A levels (or equivalent qualification at level 3 such as a BTEC Diploma) which would provide a minimum of **80 UCAS points** plus four GCSEs (grades 4/C minimum or equivalent qualifications) including English Language and mathematics.

Applicants with formal qualifications will normally be expected to have a minimum of 80 UCAS tariff points. This may comprise any combination of:

- BTEC National Diploma in a relevant subject (level 3); or
- one A Level in a relevant subject; or
- Kitemarked Access to HE Diploma; or
- Advanced apprenticeship at Level 3 in a relevant subject.

A minimum of 40 points must be from a six- or twelve-unit award.

Entry onto the Integrated Foundation Year
Entry onto the four-year Integrated Foundation Year is a minimum of 32 UCAS points plus four GCSEs including English Language and mathematics at grade 4/C or above. The Foundation phase of the course is integrated and studied across the first two years.

Alternative entry requirements
Applications are welcomed from individuals with employment experience and non-standard qualifications. Mature applicants (aged over 21) may be able to join the course following an assessment of experience including a discussion with the HE Subject Leader. Applicants with non-standard entry requirements will normally be required to complete the recognition of prior learning (RPL) procedure and this may include an assessment of standards in written English.

International applicants
Applicants with international qualifications will be considered on the merits and equivalence of their offered qualifications supported by evidence of competency in written and spoken English. (e.g. IELTS score 6.0 or equivalent for the standard entry requirement or IELTS score 5.5 for entry onto the Integrated Foundation Year)

22 Support for Students and their Learning

Induction

All students will be given a full induction to the College and their course which will include meeting academic staff and non-academic support staff, plus an overview of College services. Students will receive a copy of the HE Student Handbook which provides key information for students.

Welfare Team

The College Welfare team provide a range of pastoral and general well-being support for students. There is a named HE pastoral tutor for each student, plus College counsellors, mental health and well-being mentors, student financial support and general support with welfare issues while a being student on the programme.

Equal Opportunities

Student support is consistent with the Warwickshire College policy on Equality and Diversity which can be found on the Warwickshire College external website. WCG has a proactive Equality and Diversity Committee plus an Access and Participation Committee to review widening access, student support and progression.

Learning Resources

Warwickshire College and University Centre library service provides a full range of texts, journals, e-books and other online resources. The College virtual learning environment known as the Google Classroom can be accessed via the Internet and holds a wide range of course materials and assessment information.

Inclusion

The HE Inclusion team provide support for students registered with disabilities such as dyslexia. The team will help students access Disabled Student's Allowance DSA funding and ensure that students have the support they require to achieve the course.

Academic Tutorials

Students will be allocated an academic tutor who will offer support throughout their studies. Each course has a comprehensive course handbook. Students are entitled to a minimum of two academic tutorials per year on an individual basis with their academic tutor.

Study Skills

During their course all students should develop and exercise a range of academic competencies as described in the programme aims and intended learning outcomes, including through the module Academic Study Skills, Employability and T-Shaped, known as ASSET. This module has been developed in order to help students to plan and carry out their coursework and assessments, making the most of the time available and helping them to achieve their potential.

Residential Services

The College provides residential accommodation at three of the college sites: Leamington, Moreton Morrell and Pershore Colleges. Moreton Morrell and Pershore Colleges are

land-based centres offering a quiet residential experience in the countryside, whereas Leamington offers a vibrant town-based experience in the lively town of Royal Leamington Spa.

Student Engagement
The Student Engagement Officer ensures that students have the opportunity to elect Student Representatives to sit on the HE Student Council and Course Consultative Committees. The College has a HE Student Experience Committee where HE council members are invited to contribute/lead the discussions.

Careers Advice
Each year the higher education team hold a 'Futures Week' where students can explore ideas for their future. The College Careers Team provide guidance for students and present suggestions and new ideas during futures week. The online Career Launchpad employability portal offers the opportunity for students prepare for job interviews, and give tips for CV writing in addition to keeping students up to date with current affairs and updates from their chosen profession or sector.

Work-Based and Placement Learning (WBPL)
All HE Work-Based and Placement Learning is undertaken in line with the approved Warwickshire College and University Centre WBPL documentation and procedures which are held on the HE area of the Warwickshire College and University Centre intranet.

23 Evaluating and Enhancing the Quality and Standards of Teaching & Learning

Quality and standards at Warwickshire College and University Centre are monitored and maintained through a wide range of processes, including those relying upon contributions from the student body. The Quality and Enhancement Manual on the college intranet provides details of the regulations, policies and procedures used. The Higher Education Quality Team (HEQT) oversee the monitoring of quality and standards.

The HE Subject Leader completes an Annual Course Report (ACR) at the end of each academic year. This report enables the evaluation of many aspects of the course management including the quality of assessment and employer engagement. The ACR is scrutinised at an annual validation event where the resulting quality improvement plan is approved.

One key piece of information that feeds into the Annual Course Report is the External Examiner (EE) Report. The EE looks at the quality of assessment on the course and sits on the Assessment Board that confirms grades and progression.

The annual programme of lesson observations undertaken within Warwickshire College and University Centre assesses the standard of teaching in the classroom.

Student-focused quality mechanisms and student engagement mechanisms are as follows:

- The Students' Union has a series of approaches to Student Voice with details on the Warwickshire College and University Centre intranet.
- A range of surveys allow students to comment formally on their programmes including the nationally-administered National Student Survey (NSS), the HE First Impressions and HE Course Surveys.
- Course Consultative Committees are held three times a year to ensure that student representatives have an input to course management issues including reviewing ACRs, EE reports and HE Course Survey results.
- Students are represented on a number of Warwickshire College and University Centre meetings including the Higher Education Student Experience Committee, Higher Education Academic Board and Academic Standards and Quality Assurance (ASQA) Committee (Governors).

24 Indicators of Quality and Standards

This award is designed with reference to the Office for Students quality and standards conditions as part of general ongoing conditions of registration. In particular, this document references Condition B5 - Sector-recognised standards. WCUC will ensure any standards set appropriately reflect any applicable sector-recognised standards; and awards are only granted to students whose knowledge and skills appropriately reflect any applicable sector-recognised standards.
This award also references the QAA (Quality Assurance Agency) Subject Benchmark Statements (which describe the content expected in courses in particular subjects).

Internal indicators of annual quality and standards include annual reports that are considered carefully by the course team and any actions are responded to:

- Annual External Examiners' reports; and
- Annual Industry Adviser reports.

In April 2021, Warwickshire College was granted Bachelor Degree-Awarding Powers (BDAP) via an Order from the Office for Students following an in-depth scrutiny of quality and standards by the Quality Assurance Agency (as the designated quality body) during 2020.

25 Progression

The students will have gained the skills, knowledge and experience of studying the Agritech sector to be adaptable to a wide range of employment opportunities in this fast growing sector as technical supervisor/manager or research position. The course will allow progression onto a Master Degree in a related subject, e.g.water resilience and sustainability or urban agriculture, controlled environment engineering.

26 Further Information

This programme specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate by taking full advantage of the learning opportunities provided.

More detailed information relating to this programme can be found in the Course Handbook and Module Descriptors collated in the Module Handbook.

The language of study is English.

27 Curriculum Map

The curriculum map, over the page, identifies where the intended learning outcomes of the programme are covered within the modules. A box is ticked where an outcome is demonstrated to a significant extent in a given module. The coded columns relate to the intended learning outcomes within the four categories described in sections 15.1 to 15.4:

- KU Knowledge and understanding of the subject
- CS Cognitive skills
- PS Practical and/or professional subject skills
- TS Transferable skills (T-Shaped)

Level 4

Module Codes	Module Titles	KU1	KU2	KU3	CS1	CS2	CS3	CS4	CS5	CS6	CS7	PS1	PS2	PS3	PS4	PS5	PS6	PS7	PS8	PS9	PS10	PS11	PS12	PS13	TS1	TS2	TS3	TS4
490HOR	Academic Study Skills, Employability and T-Shaped	✔	✔	✔	✔	✔	✔			✔	✔	✔	✔					✔	✔	✔		✔	✔		✔	✔	✔	✔
402HOR	Introduction to Plant Pathology	✔	✔	✔	✔	✔	✔	✔	✔		✔		✔	✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	✔	
404HOR	Plant and Soil Science Technology	✔		✔	✔		✔	✔		✔				✔	✔	✔	✔		✔	✔			✔	✔	✔	✔		✔
406HOR	Agronomy and Plant Health	✔		✔	✔		✔	✔		✔				✔	✔	✔	✔	✔	✔	✔		✔			✔	✔		
414HOR	Control of Horticultural Technologies	✔		✔	✔		✔	✔	✔		✔		✔	✔	✔			✔				✔		✔	✔			✔
420HOR	Horticulture Engineering Technology	✔		✔	✔				✔	✔	✔			✔	✔	✔	✔	✔		✔	✔			✔	✔	✔		✔

Level 5																												
Module Codes	**Module Titles**	**KU1**	**KU2**	**KU3**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**CS7**	**PS1**	**PS2**	**PS3**	**PS4**	**PS5**	**PS6**	**PS7**	**PS8**	**PS9**	**PS10**	**PS11**	**PS12**	**PS13**	**TS1**	**TS2**	**TS3**	**TS4**
590HOR	Work-based and Placement Learning	✔	✔	✔	✔					✔	✔	✔		✔	✔		✔	✔	✔	✔	✔	✔		✔		✔	✔	✔
502HOR	Introduction to Aerial Surveying and Technologies	✔		✔	✔	✔		✔	✔	✔					✔	✔	✔	✔	✔			✔	✔		✔		✔	✔
504HOR	Horticulture Soil-less Technologies		✔	✔	✔	✔	✔		✔	✔	✔		✔	✔	✔	✔	✔		✔		✔	✔	✔		✔		✔	✔
509HOR	Research, Design and Analysis			✔	✔		✔	✔	✔				✔	✔	✔	✔	✔			✔		✔		✔	✔	✔	✔	✔
522HOR	Introduction to Robotics in Horticulture			✔	✔	✔	✔			✔	✔			✔		✔				✔			✔	✔	✔		✔	✔
523HOR	Urban Horticulture	✔	✔	✔	✔		✔	✔		✔	✔	✔	✔						✔		✔		✔	✔	✔	✔	✔	✔

Level 6																												
Module Codes	**Module Titles**	**KU1**	**KU2**	**KU3**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**CS7**	**PS1**	**PS2**	**PS3**	**PS4**	**PS5**	**PS6**	**PS7**	**PS8**	**PS9**	**PS10**	**PS11**	**PS12**	**PS13**	**TS1**	**TS2**	**TS3**	**TS4**
601HOR	Autonomous Horticulture	✔	✔	✔	✔			✔	✔	✔			✔		✔	✔		✔		✔	✔	✔	✔		✔	✔	✔	✔
602HOR	Applied Sustainable Land Management		✔	✔	✔	✔	✔	✔		✔	✔		✔	✔	✔	✔	✔			✔	✔	✔	✔	✔	✔	✔	✔	✔
603HOR	Agricultural and Horticultural Data Systems	✔	✔	✔	✔	✔				✔	✔		✔		✔		✔	✔	✔	✔			✔	✔	✔	✔	✔	
604HOR	Pathogen Interactions in Co-infected Plants	✔	✔	✔	✔	✔	✔	✔	✔				✔	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔		✔	✔	✔
657HOR	Dissertation	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔		✔	✔	✔	✔	✔