

## Part 1 Programme details

<b>Proposed title</b>	BSc (Hons) in Sustainable Timber Technology
<b>Mode and duration of programme</b>	Four Years full-time/ two years part-time (for add-on route from current Level Seven programme)
<b>ECTS</b>	240 / 80
<b>TU Dublin award(s) sought</b>	Bachelor of Science (Hons) in Sustainable Timber Technology
<b>Classifications of award(s)</b>	First Class Honours; Second Class Honours, First Division; Second Class Honours, Second Division; Pass
<b>Exit award</b>	Bachelor of Technology in Timber Technology - Level Seven, unclassified (see Part 6, Recommendations of Panel)
<b>School responsible</b>	Dublin School of Architecture
<b>Professional body accreditation and relevant dates (where applicable)</b>	The School shall seek accreditation for the programme from the Institute of Materials, Minerals and Mining.
<b>External provider type (where applicable)</b>	NA
<b>Delivery location</b>	TU Dublin – City (Bolton Street)

## Part 2 Programme approval information

<b>Date of initial approval (of Q1A) by ORC's Academic and Research Committee</b>	<b>November 2018*</b> <b>Pending costings sign-off</b>
<b>Date of validation event</b>	<b>10<sup>th</sup> February 2020</b>
<b>Date of approval by Academic Council and Governing Body</b>	
<b>Proposed date of commencement</b>	<b>September 2021</b>

## Part 3 Programme background/structure

**Background**

A three year ordinary degree (NFQ L7) programme has been delivered since 2012. Initially it had a common Year 1 and two strands in Years 2 and 3 in Operations Management and Furniture Manufacture. A restructure of the programme resulted in

a leaner, single-strand structure, featuring advanced entry, without change to the original programme learning outcomes.

Ongoing research and outreach to stakeholders has made it clear that there is a unique opportunity to take the knowledge developed in teaching the existing programme and other programmes from the wider TU Dublin family to develop a broader timber technology programme that serves the full Forest Products Sector. The proposed honours (NFQ L8) degree programme: Bachelor of Science (Honours) Sustainable Timber Technology is a single-strand programme featuring optional modules, placement and thesis through which students can develop different foci. It includes a bridging facility for graduates of the preceding programme (BTech in Timber Product Technology).

### ***Stated learning outcomes of the programme***

The programme aims to

- create graduates that are passionate about sustainability and committed to creating innovative, high quality forest products in ways that contribute to a lower carbon footprint and a sustainable bioeconomy.
- develop a detailed knowledge and understanding of timber specification, timber processing and timber product manufacturing; supported by knowledge and skills in timber craft and visual communications; science, operations management and quality control; business and the environment
- encourage collaboration; and practical, creative and analytical approaches to problem solving and technological development.
- promote an ethos of life-long learning and high professional and environmental standards.

Through industry placement, selection of relevant thesis subjects and engagement with stakeholders, the programme aims to ensure that graduate competencies are relevant to industry needs.

### *Programme Learning Outcomes*

On successful completion of the BSc (Hons) in Sustainable Timber Technology, graduates will be able to:

#### **Context & science**

- demonstrate detailed knowledge of the Forest Products Sector in Ireland and abroad, and its role in the emerging bioeconomy;
- understand sustainability, in particular the increasing role of forest products in sequestering carbon, material substitution and circularity, thereby strengthening societal resilience and mitigating the climate and biodiversity emergency;
- create applied research in wood science relating to timber processing and/or forest products.

#### **Technological, production, innovation**

- understand the operation of factories and workshops of the forest product sector (such as sawmills, board mills & joineries), including supply chain;

- demonstrate mastery of technological and production processes for timber processing and forest product manufacturing;
- use advanced technical, craft and digital skills required in timber processing and forest product manufacturing;
- demonstrate innovation in the design and manufacture of a broad range of forest products.

### **Management, quality, business**

- act effectively in the management of production, operations and quality systems;
- exercise appropriate judgement in the application of professional, environmental and regulatory standards in the Forest Products Sector;
- act effectively under guidance making use of problem solving, innovation and entrepreneurial skills to develop timber processing and forest product manufacturing enterprises.

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### **Personal**

- express a comprehensive worldview that demonstrates self-awareness, a willingness to collaborate and high professional standards;
- learn to learn independently, professionally and ethically in variable and unfamiliar learning contexts.

### ***Programme structure***

The proposed programme is a single-strand programme featuring optional modules, placement and thesis through which students can develop different foci. The bridging programme comprises 80 ECTS of eight core modules and eight optional modules completed over two years part-time.

### ***Entry Requirements (See Part 6 Recommendations of the Panel)***

Minimum entry requirements are a Leaving Certificate with a Grade O5 / H6 in Mathematics and English, and a Grade O6 / H7 in three other subjects.

Applications for entry to Year 1 of the programme must be made through the Central Applications Office (CAO).

The majority of applicants will be admitted on the basis of Leaving Certificate points or an equivalent second level award, and are admitted through CAO Round 1 and subsequent offers.

Non Standard, Mature, Access, QQI-accredited programmes, TU Dublin transfer students, Disability and International Students shall be admitted in accordance with stated procedures.

### ***Add-on programme***

Applicants must have achieved a 'pass' award in *B.Tech (Ord.) Timber Product Technology* (code DT169 / TU732). Relevant work experience in the Forest Products Sector, post-completion of degree, is crucial to successful engagement in the *BSc STT (Top-Up)* degree (given its value in completing assignments, classroom discussions and selection of thesis). This experience is in lieu of the structured industry practice

work placement module that takes place in Semester 2 of Year 3 in the full-time programme. Applicants must have at least nine months of relevant work experience since graduation.

### ***Student assessment***

In accordance with TU Dublin's General Assessment Regulations. In some modules minimum thresholds of performance in assessment components apply.

### ***Derogations from the General Assessment Regulations, including rationale for derogation and view of the Panel:***

None sought

## **Part 4 Validation Details and Membership of Panel**

### **Schedule of meetings**

#### ***Monday 10th February 2020***

***Venue: Boardroom, TU Dublin – City (Bolton Street)***

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|----------|---|
| 09.00 am | Refreshments (tea/coffee) served. Introductory meeting between Panel, Director and Dean of College of Engineering & Built Environment, Head and Assistant Head of Dublin School of Architecture, Chairperson and members of Programme Committee as appropriate. Presentation from School. |
| 9.30 am  | Private meeting of Panel to discuss agenda.   |
| 10.30am  | Meeting with Head of School, Assistant Head of School, Chairperson and appropriate members of the Programme Committee, to discuss specific issues raised by the Panel.  |
| 11.45 am | Meeting of Panel with staff teaching on both programmes to discuss such matters as syllabi, teaching methods and assessment issues.   |
| 12.45 pm | Panel meets with group of current students and graduates of the existing BSc in Timber Product Technology.  |
| 1.45 pm  | Lunch   |
| 2.15 pm  | Private meeting of Panel to consider draft reports.   |
| 4.00 pm  | Final meeting of Panel with Head, Assistant Head of Dublin School of Architecture, Programme Chair and other staff as appropriate.  |
| 4.15 pm  | Tour of facilities available to students on the programme.  |

## Panel Membership

### *External Members*

Dr Dan Ridley-Ellis	Head of Centre for Wood Science & Technology, Edinburgh Napier University
William St George Vernon	Wood Industry Consultant

### *Internal Members*

Dr Alex Gibson (Chair)	Assistant Head of School of Marketing, TU Dublin – City (Aungier Street)
Dr Catherine Deegan	Assistant Head of School of Electrical & Electronic Engineering, TU Dublin – City (Kevin Street)
Dr Catherine Barry Ryan	Lecturer, School of Food Science & Environmental Health, TU Dublin – City (Cathal Brugha Street)

## Quality Assurance Office

Jan Cairns	Quality Assurance Officer, TU Dublin – City (Park House, Grangegorman)
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## Documentation submitted

The Panel received the programme documentation including Student Handbooks for each year, a Powerpoint presentation on the programme and background material relating to the development of the programme.

## **Part 5 Summary of Panel findings against key questions**

Note: the Panel's findings (ie yes/no) and any additional comments against each of the key questions should be recorded below. Where a 'no' is recorded, an associated condition or recommendation should be included in Part 6, Findings of the Panel.

Is the market demand and need for the programme clear and articulated?	Yes
Are the aims, objectives and learning outcomes of the programme well-founded and clearly formulated?	Yes
Are the entry requirements clear and appropriate?	See Recommendations of the Panel

Are the arrangements for access, transfer and progression in accordance with University policy and NFQ?	Yes
Are the programme learning outcomes at the appropriate level as set out by the NFQ requirements?	Yes
Do the individual modules 'add up' to a coherent programme?	Yes
Are Graduate Attributes embedded within the programme?	Yes
Will the accumulation of the module learning outcomes result in the attainment of the programme learning outcomes?	Yes
Is there appropriate use of student-centred learning, teaching and assessment strategies, including the First Year Framework for Success checklist, which recognise the needs of diverse student groups?	See Part 6 Recommendations of the Panel.
Do the curricula and teaching schemes in each module descriptor give realisable substance to the module's aims, objectives and learning outcomes?	Yes
Are the assessment methods and criteria aligned to the learning outcomes in each module?	See Part 6 Recommendations of the Panel.
Are facilities and resources, including staff, in place to support the delivery of the programme at the standard proposed?	Yes
Is there parity between off-campus/on-campus delivery (if applicable)?	NA
Are the roles and responsibilities of each partner clearly specified (if applicable)?	NA

## Part 6 Recommendations of the Panel

The Panel is pleased to recommend to Academic Council approval of the Bachelor of Science (Honours) in Sustainable Timber Technology, at Level Eight on the National Framework of Qualifications, and the Bachelor of Technology in Timber Technology, at Level Seven on the National Framework of Qualifications, subject to conditions and with several recommendations and two observations.

The Panel also recommends approval of the proposed bridging arrangement to facilitate graduates of the current level 7 programme complete the honours degree.

The Panel is of the view that the proposed programme meets a growing need and will have a positive impact for a strategically important sector of the Irish economy. It also considers that it aligns with TU Dublin's Strategic Plan and that it will be important programme for the University that is well known in the sector. The Panel encourages the School, College and University to support the promotion of the programme in order to maximise the benefits of the programme to the School and University as a whole.

## Conditions

1. It should be clear within all modules what the assessment strategy is, ie the types of continuous assessment or coursework expected, with weightings attached, and aligned to specific module learning outcomes.
2. The Programme Team should produce a placement handbook that describes the organisation and management of the placement including the process whereby a student is placed as well as supervision and assessment arrangements. These arrangements should include a placement contract.
3. The minimum entry requirements for CAO applicants to the *ab initio* programme should follow TU Dublin standard requirements.

### The Panel also recommends the following:

1. The Programme Team should consider reinforcing the sustainability thread that goes through the programme. For example, it suggests that students research the various different concepts and models of sustainability and address this in a project/thesis that they approach from a perspective of personal interest. Connected to this, the Panel also recommends that the Sulitest be incorporated into the programme.
2. The Programme Team should adopt a holistic view of the programme in terms of assessment, in particular further consideration of the following: the use of formative as well as summative assessment, increasing the amount of group work and how this might be managed and assessed, greater use of presentations and assessments relating to field trips. The Team should also consider alternative and innovative assessment methods that are not time-consuming either for students or staff.
3. The Team should consider classifying the Bachelor of Technology exit award.
4. The Team should consider the parameters around which a student who has exited the programme with the Bachelor of Technology can re-enter the programme to complete the Honours Degree.
5. The Team should reconsider the work experience requirement for Bachelor of Technology graduates to enter the Level Eight bridging programme as the Panel is currently unclear of the rationale for this.
6. The School should ensure that collaborative interdisciplinary activities within the School and across Schools are incorporated into this and other programmes, for example, through shared events, field trips, projects etc.
7. The module title for the Visual Communications 4 module should be reviewed, as the Panel considers that it does not accurately reflect the module content. It also recommends that all module titles are reviewed with a view to supporting the marketability of the programme.
8. The Team should proofread the programme documentation to ensure completeness and accuracy throughout and that reading lists are updated. For example, the two business modules should now be incorporated within the documentation and tables refer to the correct modules.
9. The assessment strategy for the Enterprise Development module should be clarified.
10. Staff professional development should be prioritised with regard to technological updating, standards and legislation.

**Observations**

- The Panel supports the School's intention to make the modules on the programme available as stand-alone CPD awards. It advises that the M4 procedure be followed in this regard.
- The Panel advises that it would not be appropriate, as suggested within the programme documentation, that an exit award made by the University be returned if a student returned to complete the Honours Degree.