

Renewable materials for healthy built environments doctoral study programme, third Bologna cycle

COURSE STRUCTURE of the study programme

The study programme consists of the following components:

- compulsory courses,
- elective courses,
- seminar,
- individual research work,
- doctoral dissertation.

Upon enrolment in the first year, the student selects a supervisor in accordance with their research interests, who provides guidance throughout the study process and in the preparation of the doctoral dissertation.

The student prepares a doctoral dissertation that represents a significant and original scientific research contribution in the field of renewable materials for healthy built environments. Prior to the defence of the doctoral dissertation, the work must be published (or accepted for publication) in an international journal in the relevant field, specifically in at least two articles in journals indexed in the SCI database (with the student as first or lead author).

To complete the programme and obtain the doctoral degree, the student must fulfil all academic requirements defined by the programme. A minimum of 180 ECTS must be obtained, of which 60 ECTS are awarded for the preparation and successful defence of the doctoral dissertation.

Table 1: Structure of the study programme

Year of study	Study obligation	ECTS-credits (ECTS)	
		ECTS	ECTS/Year of study
1.	Compulsory course	30	60
	Individual research work	15	
	Preparation of doctoral disposition - seminar	15	
2.	Individual research work	40	60
	Internal elective course	20	
3.	Individual research work (preparation and defense of doctoral dissertation)	60	60

Legend:

ECTS credits (ECTS) = credit points awarded under the European Credit Transfer and Accumulation System (ECTS). The credit system facilitates student mobility and the mutual recognition of completed academic requirements.

ECTS credits represent an average estimate of the time required to complete a course and include both organized forms of instruction (lectures, seminars, seminar and laboratory exercises, fieldwork, practical training, etc.) and the student's independent work (exam preparation and other course-related obligations, etc.). One (1) ECTS credit corresponds to 25 to 30 hours of study workload. Credits are awarded upon the successful completion of the requirements for an individual course.

Table 2: Compulsory courses of the 1st year of study

No.	Course	ECTS
1.	Scientific writing and presentation	5
2.	Design and analysis of planned experiments	5
3.	Renewable materials for healthy built environments	20
4.	Preparation of doctoral disposition - seminar	15

Table 3: Elective courses

No.	Course	ECTS
1.	Selected topics in wood science and technology	10
2.	Selected topics in wood modification and functionalization of renewable materials	10
3.	Selected topics in advanced manufacturing / process control of engineered renewable materials for use in sustainable buildings	10
4.	Selected topics in renewable material engineering and sustainable construction	10
5.	Selected topics in the characterisation of renewable materials	10
6.	Selected topics in regenerative sustainability	10
7.	Selected topics in human health in the built environment	10
8.	Selected topics in IoT and the built environment	10
9.	Selected topics in modeling	10
10.	Holistic design of contemporary timber buildings	10
11.	The built environment and role of engineers	10

Individual research work represents the student's scientific research on their doctoral topic, carried out under the supervision of and in collaboration with their supervisor.

In the second year, students select **external elective courses** within accredited study programmes at higher education institutions in Slovenia or abroad, particularly in the fields of architecture, urban planning, toxicology, environmental health, and related areas, delivered by appropriately qualified academic staff.

Prior to selection, students must submit the syllabus of the proposed elective course, based on which the study programme coordinator grants or denies approval for its inclusion within the external elective component. External elective courses may also be completed in an online format.

For assistance and guidance, students may consult the study programme coordinator.

Doctoral dissertation (PhD Thesis)

The doctoral dissertation represents a significant and original scientific research contribution in the field of renewable materials for healthy built environments.

Prior to the defence of the doctoral dissertation, the work must be published (or accepted for publication) in an international journal in the relevant field, specifically in at least two articles in journals indexed in the SCI database (with the candidate as first or lead author).

The procedure for the registration of the doctoral dissertation topic and its defence is defined in detail in the [Rules on the preparation and defence of the doctoral dissertation at the University of Primorska](#).

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