

UNIVERSITY OF ZAGREB
FACULTY OF FORESTRY AND WOOD TECHNOLOGY

IMPLEMENTATION PLAN
OF THE DOCTORAL STUDY PROGRAM OF
FORESTRY AND WOOD TECHNOLOGY
FOR THE ACADEMIC YEAR 2025/2026

Zagreb, July 2025

1. NAME OF THE DOCTORAL STUDY PROGRAM

FORESTRY AND WOOD TECHNOLOGY

2. INSTITUTION OFFERING THE DOCTORAL STUDY PROGRAM

UNIVERSITY OF ZAGREB, FACULTY OF FORESTRY AND WOOD TECHNOLOGY

3. NAME OF THE INSTITUTION DELIVERING THE STUDY PROGRAM

UNIVERSITY OF ZAGREB, FACULTY OF FORESTRY AND WOOD TECHNOLOGY

4. HEAD OF THE DOCTORAL STUDY PROGRAM

ASSOCIATE PROFESSOR KRISTIJAN TOMLJANOVIĆ (ktomljanovic@sumfak.unizg.hr, +385 1 2352 446)

5. COORDINATOR FOR FORESTRY

PROFESSOR MARIO BOŽIĆ (mbozic@sumfak.unizg.hr, +385 1 2352 498)

6. COORDINATOR FOR WOOD TECHNOLOGY

ASSOCIATE PROFESSOR NIKOLA ŠPANIĆ (nspanic@sumfak.unizg.hr, +385 1 2352 587)

7. STUDENT OFFICE

DANIJELA PIRŠLJIN BUNJEVČEVIĆ, LLB (dpirsljin@sumfak.unizg.hr, +385 1 2352 400)

8. SCIENTIFIC AREA AND FIELDS

Scientific area: Biotechnical sciences

Scientific fields: Forestry

Wood technology

9. DURATION OF THE DOCTORAL STUDY PROGRAM

3 years

10. NUMBER OF COMPULSORY COURSES

2 courses

11. NUMBER OF ELECTIVE MODULES/COURSES

23 modules (46 courses) and 46 elective courses

12. DESCRIPTION OF THE ORGANISATION OF THE DOCTORAL STUDY PROGRAM

The study program consists of organised classes and practical work (in the form of scientific research). The maximum course load may not exceed 20% of the total study program load expressed in ECTS credits.

The study program is designed such that in the first semester, all enrolled students attain knowledge from the compulsory methodology courses (first credit group), while in the second and third semesters, students select their elective module and elective courses (second credit group) in agreement with their study advisor or mentor based on the scientific activity and field of scientific research. During their studies, students must engage in scientific activity, which is awarded credits based on defined criteria (third credit group).

During their studies, students must earn a total of 36 ECTS credits in classes from the first and second credit groups (compulsory courses, elective modules and elective courses) and at least 144 ECTS credits

from the third credit group (scientific papers, scientific activities, and preparing the doctoral dissertation).

1st semester	2nd semester	3rd semester	4th semester	5th semester	6th semester
Compulsory courses 8 ECTS	Elective module 14 ECTS	Elective courses 14 ECTS	Conducting research, writing scientific papers, scientific activities, preparation of the doctoral dissertation 144 ECTS		
Conducting research, scientific activities, scientific papers					

Instead of the elective courses in the proposed study program, students may also enrol in courses from other doctoral study programs.

The overall doctoral study program is delivered in the form of lectures, exercises, conducting research, writing seminar papers, and publishing scientific and professional papers.

Classes are held in blocks by courses, after which the student may sit the examination. If fewer than five students are enrolled in a course, lectures are held in the form of consultations and the practical part of the course is held in groups based on the number of enrolled students.

13. POSSIBILITY OF DELIVERING THE DOCTORAL STUDY PROGRAM IN ENGLISH

If required, the entire doctoral study program may be delivered in English.

14. LEARNING OUTCOMES OF THE STUDY PROGRAM

Learning outcome label (IU)	Description of learning outcomes of the doctoral study program Forestry and Wood Technology
IU1	Critically interpret, evaluate and synthesize existing theories and the latest scientific findings, and identify research problems and raise relevant scientific research questions in the scientific fields of forestry and wood technology and related areas.
IU2	Set up well-argued new scientific hypotheses, determine measurable research goals, and independently design, plan and conduct original scientific research that contributes to new knowledge in the field of forestry and wood technology.
IU3	Select and apply appropriate advanced scientific methods and techniques (analytical, synthetic, quantitative, laboratory and field methods, statistical analysis, etc.) in collecting, analyzing and interpreting research data.
IU4	Critically analyze and evaluate the results of one's own scientific research, interpret and argue for them, and create one's own new theories, methods, procedures, models and other scientific results.
IU5	Present the results of one's own scientific research clearly and with arguments to larger and more complex social groups at the national and international levels.
IU6	Publish research results in high-ranking scientific publications with the aim of disseminating new knowledge, contributing to the development of the scientific community and applying new knowledge and skills in forestry and wood technology practice.
IU7	Act as an independent researcher capable of participating in the development of studies, reports, projects, strategic and operational documents in the field of forestry and wood technology.

IU8	Apply for and lead a national/international scientific project - prepare a project proposal, determine a financial plan, lead multidisciplinary teams, conduct regular reporting on project work, achieve project goals.
IU9	Manage complex forest management systems based on scientific models and data.
IU10	Develop innovative solutions and optimize technological processes in wood processing and furniture production with the aim of increasing efficiency and sustainability.
IU11	Communicate and cooperate with various interest groups (domestic and international scientists, experts, decision-makers) for the purpose of transferring knowledge and innovations and popularizing the results of their own scientific research to the general public.
IU12	Develop research and learning skills necessary for lifelong learning and continuous improvement and refinement of acquired knowledge (formal, non-formal and informal).
IU13	Take ethical responsibility in all aspects of scientific work, including the application of research to the environment, economy and society.

15. LECTURE SCHEDULE FOR THE ACADEMIC YEAR 2025/2026

15.1 First credit group – Methodological courses (compulsory)

No. (Code)	Course	Course load, hours				ECTS credits
		Hours (total)	Lectures	Exercises	Seminar	
1. (DS1)	METHODS OF SCIENTIFIC RESEARCH WORK (Prof. Željko Škvorc, PhD, Prof. Ružica Beljo Lučić, PhD)	20	5	10	5	4
2. (DS2)	EXPERIMENTAL DESIGN AND STATISTICAL MODELLING (Prof. Anamarija Jazbec, PhD, Associate Prof. Mislav Vedriš, PhD)	20	5	10	5	4

15.2 Second credit group – elective modules

No. (Code)	Elective module	Course load, hours				ECTS credits
		Hours (total)	Lectures	Exercises	Seminar	
	SILVICULTURE					
3. (DSU5)	SILVICULTURE OF NATURAL STANDS (Academician Prof. Igor Anić, PhD, Associate Prof. Stjepan Mikac, PhD)	32	12	14	6	7
4. (DSU4)	FOREST ESTABLISHMENT (Prof. Milan Oršanić, PhD, Associate Prof. Damir Drvodelić, PhD)	32	12	14	6	7
	ENHANCING FOREST TREES					
5. (DSU3)	ENHANCING FOREST TREES (Prof. Saša Bogdan, PhD, Associate Prof. Ida Katičić Bogdan, PhD)	24	5	14	5	7
6. (DSU2)	APPLIED DENDROLOGY (Prof. Marilena Idžojtić, PhD, Associate Prof. Igor Poljak, PhD)	30	12	8	10	7
	FOREST VEGETATION AND HABITATS					
7. (DSU9)	APPLIED FOREST PHYTOCENOLOGY (Prof. Dario Baričević, PhD, Prof. Joso Vukelić, PhD, <i>profesor emeritus</i>)	28	10	10	8	7
8. (DSU15)	HABITAT-PLANT INTERACTIONS IN FORESTRY (Prof. Nikola Pernar, PhD, Prof. Ivica Tikvić, PhD, Prof. Željko Škvorc, PhD)	30	12	12	6	7
	FOREST REVITALISATION AND RECLAIMING DEGRADED HABITATS					

9. (DSU6)	SILVICULTURAL PROCEDURES IN DEGRADED FOREST CONDITIONS (Academician Prof. Igor Anić, PhD, Prof. Ivica Tikvić, PhD)	24	10	8	6	7
10. (DSU8)	REVITALIZATION AFTER FOREST FIRES (Prof. Željko Španjol, PhD, Prof. Damir Barčić, PhD, Associate Prof. Roman Rosavec, PhD)	24	8	10	6	7
	FOREST SOILS					
11. (DSU12)	SOIL CLASSIFICATION SYSTEMS (Prof. Nikola Pernar, PhD, Associate Prof Darko Bakšić, PhD, Associate Prof. Ivan Perković, PhD)	30	10	10	10	7
12. (DSU14)	COLLOIDAL COMPLEXES AND SOIL CHEMISTRY (Prof. Nikola Pernar, PhD, Associate Prof. Darko Bakšić, PhD, Associate Prof. Ivan Perković, PhD)	26	8	10	8	7
	HUNTING MANAGEMENT					
13. (DSU18)	NEW FINDINGS ON BREEDING GAME ANIMALS IN THE WILD (Prof. Marijan Grubešić, PhD, Associate Prof Kristijan Tomljanović, PhD)	32	10	12	10	7
14. (DSU21)	VALIDATING HABITATS FOR GAME ANIMAL BREEDING (Prof. Marijan Grubešić, PhD, Associate Prof. Kristijan Tomljanović, PhD)	26	10	10	6	7
	URBAN FORESTRY					
15. (DSZ2)	DENDROFLORA IN SHAPING SPACE (Prof. Marilena Idžojtić, PhD, Associate Prof. Igor Poljak, PhD)	24	7	10	7	7

16. (DSZ23)	METHODS AND MODELS FOR DETERMINING FOREST VALUE (Prof. Stjepan Posavec, PhD)	24	6	4	14	7
	NATURE CONSERVATION					
17. (DSZ6)	INTEGRAL PROTECTED AREA MANAGEMENT (Prof. Ivan Martinić, PhD)	24	6	8	10	7
18. (DSZ22)	CONSERVING AND PROTECTING BIOLOGICAL AND LANDSCAPE DIVERSITY (Prof. Željko Španjol, PhD, Prof. Damir Barčić, PhD)	24	6	4	14	7
	FOREST MANAGEMENT					
19. (DSZ8)	MULTIPURPOSE MODELS AND SUSTAINABLE MANAGEMENT PLANNING FOR REGULAR AND SELECTION FORESTS (Prof. Jura Čavlović, PhD, Associate Prof. Krunoslav Teslak, PhD)	24	6	12	6	7
20. (DSZ9)	MODELLING GROWTH AND INCREMENT YIELD OF FOREST TREE SPECIES AND STANDS (Prof. Mario Božić, PhD)	24	6	12	6	7
	REMOTE SENSING AND GIS IN FORESTRY					
21. (DSZ14)	ASSESSING FOREST CONDITION USING REMOTE SENSING METHODS (Prof. Renata Pernar, PhD)	24	6	14	4	7
22. (DSZ12)	USE OF REMOTE SENSING AND GIS IN MAPPING AND MODELLING (Prof. Renata Pernar, PhD, Prof. Ante Seletković, PhD)	24	6	14	4	7
	DETRIMENTAL ZOBIOTIC FACTORS IN FOREST PROTECTION					
23. (DSZ4)	FLUCTUATIONS OF FOREST INSECT POPULATIONS (Associate Prof. Milivoj Franjević, PhD)	24	6	6	12	7

24. (DSZ3)	DYNAMICS OF SMALL RODENT POPULATIONS (Prof. Josip Margaletić, PhD, Assistant Prof. Marko Vucelja, PhD)	30	5	5	20	7
	TREE PATHOLOGY AND RESISTENCE SELECTION					
25. (DSZ5)	FUNGAL DISEASES OF TREE BARK (Prof. Danko Diminić, PhD)	28	7	14	7	7
26. (DSZ10)	PRESERVING GENETIC DIVERSITY OF FOREST TREES (Prof. Saša Bogdan, PhD, Associate Prof. Ida Katičić Bogdan, PhD)	24	5	14	5	7
	WOOD HARVESTING SYSTEMS					
27. (DST2)	RATIONALISATION OF WOOD HARVESTING WORKS (Associate Prof. Dinko Vusić, PhD)	24	6	6	12	7
28. (DST5)	TOP WOOD HARVESTING TECHNOLOGIES (Prof. Tomislav Poršinsky, PhD, Prof. Karl Stampfer, PhD)	24	6	6	12	7
	FOREST TRANSPORT INFRASTRUCTURE					
29. (DST9)	OPTIMIZING FOREST TRANSPORT INFRASTRUCTURE (Prof. Tibor Pentek, PhD, Prof. Karl Stampfer, PhD, Associate Prof. Ivica Papa)	24	6	6	10	7
30. (DST11)	COMPUTER DESIGN OF FOREST ROADS (Prof. Tibor Pentek, PhD, Associate Prof. Ivica Papa, PhD)	24	8	8	8	7
	FORESTRY TECHNIQUES					
31. (DST18)	TECHNICAL AND ENVIRONMENTAL SUITABILITY OF FORESTRY MACHINERY (Prof. Marijan Šušnjar, PhD, Associate Prof. Zdravko Pandur, PhD)	24	6	6	12	7

32. (DST19)	ERGONOMY IN FORESTRY (Prof. Marijan Šušnjar, PhD)	24	6	8	10	7
	ORGANISATION AND MANAGEMENT IN FORESTRY					
33. (DST14)	FORESTRY MANAGEMENT (Assistant Prof. Matija Bakarić, PhD, Associate Prof. Matija Landekić, PhD)	24	8	6	10	7
34. (DST15)	CORPORATE MANAGEMENT (Prof. Stjepan Posavec, PhD)	24	8		16	7
	WOOD SCIENCE					
35. (DDT 201)	ANATOMIC STRUCTURE OF WOOD (Assistant Prof. Iva Ištok, PhD)	35	15	10	10	7
36. (DDT 202)	VALUATION AND USE OF WOOD (Associate Prof. Tomislav Sedlar, PhD)	35	15	10	10	7
	WOOD MODIFICATION					
37. (DDT 203)	MODIFICATIONS OF SOLID WOOD (Associate Prof. Marin Hasan, PhD)	35	15	10	10	7
38. (DDT 204)	MODIFICATION AND SURFACE DURABILITY OF WOOD (Prof. Hrvoje Turkulin, PhD, Prof. Vlatka Jirouš-Rajković, PhD)	35	15	10	10	7
	THEORY OF MECHANICAL WOOD PROCESSING					
39. (DDT 205)	THEORY OF WOOD CUTTING (Prof. Ružica Beljo Lučić, PhD, Associate Prof. Igor Đukić, PhD)	35	15	10	10	7
40. (DDT 206)	ENERGY ANALYSIS OF WOOD PROCESSING (Associate Prof. Branimir Šafran, PhD, Associate Prof. Kristijan Radmanović, PhD, Assistant Prof. Matija Jug, PhD)	35	15	10	10	7
	HYDROTHERMAL WOOD PROCESSING					

41. (DDT 207)	KINETICS, MODELLING AND OPTIMISATION OF HYDROTHERMAL PROCESSES (Prof. Stjepan Pervan, PhD, Associate Prof. Miljenko Klarić, PhD)	35	15	10	10	7
42. (DDT 208)	COLORIMETRY AND HISTOCHEMISTRY OF WOOD IN HYDROTHERMAL PROCESSES (Prof. Stjepan Pervan, PhD, Associate Prof. Miljenko Klarić, PhD)	35	15	10	10	7
	COMPOSITE WOOD MATERIALS					
43. (DDT 209)	FINE-STRUCTURE WOOD COMPOSITES (Prof. Vladimir Jambreković, PhD, Associate Prof. Nikola Španić, PhD)	35	15	10	10	7
44. (DDT 210)	STRUCTURAL ANALYSIS OF LAYERED WOOD COMPOSITES (Prof. Mladen Brezović, PhD, Associate Prof. Jaroslav Kljak, PhD)	35	15	10	10	7
	DEVELOPMENT OF WOOD CONSTRUCTIONS					
45. (DDT 211)	CONSTRUCTING THEORY (Prof. Ivica Župčić, PhD, Prof. Ivica Grbac, PhD, <i>profesor emeritus</i>)	35	25	-	10	7
46. (DDT 212)	ERGONOMY RESEARCH (Associate Prof. Zoran Vlaović, PhD, Prof. Ivica Grbac, PhD, <i>profesor emeritus</i>)	35	15	10	10	7
	THEORY OF PRODUCTION					
47. (DDT 213)	THEORY OF INDUSTRIAL PRODUCTION (Prof. Denis Jelačić, PhD, Associate Prof. Andreja Pirc- Barčić, PhD)	35	25	-	10	7

48. (DDT 214)	APPLICATION OF INFORMATION SYSTEMS IN BUSINESS AND PRODUCTION PROCESSES (Assistant Prof. Ivana Perić, PhD, Associate Prof. Krešimir Greger, PhD, Associate Prof. Kristina Klarić, PhD)	35	25	-	10	7
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15.3 Second credit group – Elective courses

No. (Code)	Elective course	Course load, hours				ECTS credits
		Hours (total)	Lectures	Exercises	Seminar	
49. (DS3)	REMOTE SENSING AND GIS IN FORESTRY (Prof. Renata Pernar, PhD)	24	10	10	4	7
50. (DSU1)	PHYSIOLOGY OF FRUIT-BEARING FOREST TREES (Prof. Željko Škvorc, PhD, Associate Prof. Krunoslav Sever, PhD)	24	10	6	8	7
51. (DSU7)	FOREST FIRE ISSUES (Prof. Željko Španjol, PhD, Prof. Damir Barčić, PhD, Associate Prof. Roman Rosavec, PhD)	26	10	8	8	7
52. (DSU10)	WETLAND AND FLOODPLAIN FORESTS (Academician Prof. Igor Anić, PhD, Prof. Joso Vukelić, PhD, <i>professor emeritus</i>)	24	10	6	8	7
53. (DSU13)	SOIL ORGANIC MATTER (Prof. Nikola Pernar, PhD, Prof. Darko Bakšić, PhD, Associate Prof. Ivan Perković, PhD)	26	8	10	8	7

54. (DSU17)	ZOOGEOGRAPHY AND ZOOECOLOGY (Prof. Josip Margaletić, PhD, Assistant Prof. Marko Vucelja, PhD)	26	8	10	8	7
55. (DSU19)	NEW FINDINGS IN THE FARM BREEDING OF GAME ANIMALS (Prof. Marijan Grubešić, PhD, Associate Prof. Kristijan Tomljanović, PhD)	26	10	8	8	7
56. (DSU20)	ANALYSIS AND ASSESSMENT OF ANIMAL POPULATIONS (Prof. Krešimir Krapinec, PhD)	26	10	10	6	7
57. (DSZ1)	BIOLOGICAL AND BIOTECHNICAL METHODS TO COMBAT BARK BEETLE (Associate Prof. Milivoj Franjević, PhD)	24	6	8	10	7
58. (DSZ7)	MYCOSIS OF TREE NEEDLES AND LEAVES (Prof. Danko Diminić, PhD)	28	7	14	7	7
59. (DSZ11)	PERIODIC INVENTORY OF FORESTS AND FOREST AREAS (Prof. Mario Božić, PhD)	24	6	12	6	7
60. (DSZ13)	PRINCIPLES AND METHODS OF PLANT TAXONOMY (Associate Prof. Daniel Krstonošić, PhD)	24	6	8	10	7
61. (DSZ15)	COMPONENTS OF MANAGING SPECIAL PURPOSE FORESTS (Prof. Jura Čavlović, PhD, Associate Prof. Krunoslav Teslak, PhD)	24	6	12	6	7
62. (DSZ16)	SMALL RODENTS AS ZONOSIS RESERVOIRS (Prof. Josip Margaletić, PhD, Assistant Prof. Marko Vucelja, PhD)	30	5	5	20	7
63. (DSZ17)	TAXONOMY OF INTRASPECIES DIFFERENTIATION (Prof. Željko Škvorc, PhD)	24	6	8	10	7

64. (DSZ18)	PLANT PROTECTION IN URBAN AREAS (Prof. Danko Diminić, PhD)	24	6	6	12	7
65. (DSZ20)	PROTECTED NATURAL VALUES (Prof. Željko Španjol, PhD, Associate Prof. Daniel Krstonošić, PhD, Prof. Damir Barčić, PhD)	24	6	4	14	7
66. (DST1)	WORK AND TIME STUDY (Associate Prof. Dinko Vusić, PhD)	24	6	8	10	7
67. (DST3)	MANAGING FORESTRY OPERATIONS (Associate Prof. Dinko Vusić, PhD)	24	6	4	14	7
68. (DST4)	CALCULATING WOOD HARVESTING COSTS (Prof. Tomislav Poršinsky, PhD, Associate Prof. Andreja Đuka, PhD)	24	6	6	12	7
69. (DST6)	FOREST PRODUCTS TRADE (Associate Prof. Dinko Vusić, PhD)	24	8	8	8	7
70. (DST8)	WOOD HARVESTING AND THE FOREST ENVIRONMENT (Prof. Tomislav Poršinsky, PhD, Associate Prof. Andreja Đuka, PhD)	24	8	8	8	7
71. (DST10)	PRIMARY AND SECONDARY FOREST OPENINGS (Associate Prof. Hrvoje Nevečerel, PhD)	24	6	8	10	7
72. (DST12)	TECHNIQUES AND TECHNOLOGY IN BUILDING FOREST ROADS (Prof. Tibor Pentek, PhD)	24	8	6	10	7
73. (DST13)	PROMINENT PROPERTIES OF WOOD (Associate Prof. Tomislav Sedlar, PhD)	24	8	8	8	7
74. (DST17)	MEASUREMENT TECHNIQUES ON FORESTRY MACHINERY (Prof. Marijan Šušnjar, PhD, Associate Prof. Zdravko Pandur, PhD)	24	6	8	10	7

75. (DST16)	BUSINESS ETHICS (Prof. Mario Šporčić, PhD, Associate Prof. Matija Landekić, PhD)	24	12		12	7
76. (DDT 301)	QUANTITATIVE METHODS IN RESEARCH (Associate Prof. Azra Tafro, PhD)	35	15	10	10	7
77. (DDT 302)	CHEMICAL ANALYSIS OF WOOD COMPOSITION (Prof. Alan Antonović, PhD)	35	15	20	-	7
78. (DDT 303)	RESEARCH OF ADHESION AND ADHESIVES IN GLUING WOOD (Prof. Goran Mihulja, PhD)	35	15	20	-	7
79. (DDT 304)	OPTIMIZATION METHODS FOR LAYERED WOOD (Prof. Mladen Brezović, PhD)	35	20	15	-	7
80. (DDT 305)	WOOD-PLASTIC COMPOSITES (Prof. Vladimir Jambrečković, PhD, Associate Prof. Nikola Španić, PhD)	35	20	15	-	7
81. (DDT 306)	THEORY OF WOOD PRODUCT DESIGN DEVELOPMENT (Associate Prof. Danijela Domljan, PhD, Prof. Boris Ljuljka, PhD, <i>profesor emeritus</i>)	30	30	-	-	7
82. (DDT 307)	METHODS TO OPTIMISE THE USE OF RAW WOOD MATERIALS (Associate Prof. Josip Ištvančić, PhD)	35	20	15	-	7
83. (DDT 308)	CHANGES TO WOOD PROPERTIES (Associate Prof. Tomislav Sedlar, PhD)	35	15	20	-	7
84. (DSZ24)	FINANCIAL VALUATION OF INVESTMENTS IN FORESTRY (Assistant Prof. Karlo Beljan, PhD)	24	12	6	6	7
85. (DSU23)	QUANTITATIVE GENETICS OF FOREST TREES (Prof. Saša Bogdan, PhD)	24	6	6	12	7

86. (DSU24)	MOLECULAR GENETICS OF FOREST TREES (Associate Prof. Ida Katičić Bogdan, PhD)	24	6	6	12	7
87. (DSU25)	VITALITY AND EXTRAORDINARY MORTALITY OF FOREST TREES (Prof. Ivica Tikvić, PhD, Prof. Damir Ugarković, PhD)	30	15	0	15	7
88. (DDT 309)	HUMAN RESOURCES POLICY THEORY IN WOOD TECHNOLOGY COMPANIES (Prof. Denis Jelačić, PhD)	26	16	0	10	7
89. (DDT 310)	RISKS OF CARCINOGENIC POLLUTION IN THE WOOD INDUSTRY (Prof. Anka Ozana Čavlović, PhD)	24	8	10	6	7
90. (DDT 311)	LIFE CYCLE ASSESSMEN IN FORESTRY AND WOOD INDUSTRY (Associate Prof. Andreja Đuka, PhD, Associate Prof. Andreja Pirc Barčić, PhD, Associate Prof. Kristina Klarić, PhD)	24	10	6	8	7
91. (DDT 312)	SUSTAINABLE DEVELOPMENT AND ECO-INNOVATION ON WOOD INDUSTRY (Associate Prof. Andreja Pirc Barčić, PhD, Prof. Darko Motik, PhD, Associate Prof. Kristina Klarić, PhD)	24	10	0	14	7
92. (DDT 313)	INNOVATIVE TECHNOLOGIES IN PRODUCT DESIGN AND DEVELOPMENT (Prof. Silvana Prekrat, PhD)	24	10	8	6	7
93. (DDT 314)	NANOCELLULOSE: SYNTHESIS, PROPERTIES AND APPLICATION (Associate Prof. Nikola Španić, PhD, Prof. Vladimir Jambreko, PhD)	35	15	15	5	7
94. (DDT 315)	EVALUATION OF CNC TECHNOLOGY IN WOOD PROCESSING (Prof. Goran Mihulja, PhD)	35	15	20	0	7

15.4 Third credit group – scientific activity

	Scientific activities and scientific papers	ECTS credits
1.	Managing a scientific project	20
2.	Participation in a domestic scientific project	5
3.	Participation in an international scientific project	10
4.	Publication of a scientific paper in an A1 group journal	35 (A*), 15 (K*)
5.	Publication of a scientific paper in an A2 group journal	20 (A), 10 (K)
6.	Presentation at an international scientific conference (A3 group)	15 (A), 5 (K)
7.	Poster at an international scientific conference	10 (A), 4 (K)
8.	Presentation at a domestic scientific conference	8 (A), 3 (K)
9.	Poster at a domestic scientific conference	6 (A), 2 (K)
10.	Other papers and other scientific activities (based on assessment of the head of doctoral studies)	0-10
11.	Defence of the topic of the doctoral dissertation	10
12.	Patents, books or book chapters (based on the assessment of the head of doctoral studies)	0-15
13.	Writing the doctoral dissertation	30
14.	Additional credits for writing a doctoral dissertation in English	10
15.	Additional credits for writing a doctoral dissertation according to the Scandinavian model	10
16.	Awards, recognition, etc. (based on the assessment of the head of doctoral studies)	0-10
17.	Scientific training abroad (up to 1 month)	10
18.	Scientific training abroad (from 1 to 3 months)	20
19.	Scientific training abroad (longer than 3 months)	30
20.	Participation in classes (course /semester)	5

Instructions for applying the table for the third credit group:

a) * A – main author, C – co-author

b) A scientific paper of a doctoral candidate written in a global language and published in a highly ranked journal (A1 group), where the candidate is the first or main author, will be granted 35 ECTS credits for each such paper, and where the candidate is a co-author will be granted 15 ECTS credits for each paper. If the doctoral candidate published a paper in one of the most prestigious publications, such as *Science* or *Nature* or an equivalent in the biotechnical field, the study leader will award an additional 10 ECTS credits in item 14. Awards, recognitions, etc.

Exam dates for the course Experimental Design and Statistical Modeling in the academic year 2025/2026:

13. 01. 2026.

10. 03. 2026.
12. 05. 2026.
07. 07. 2026.
15. 09. 2026.
10. 11. 2026.

Exam dates for all other doctoral study courses in the academic year 2025/2026:

24. 10. 2025.
28. 11. 2025.
12. 12. 2025.
23. 01. 2026.
13. 02. 2026.
27. 02. 2026.
27. 03. 2026.
24. 04. 2026.
22. 05. 2026.
03. 06. 2026.
26. 06. 2026.
10. 07. 2026.
04. 09. 2026.
11. 09. 2026.
18. 09. 2026.
25. 09. 2026.
28. 10. 2026.