



**THE UNIVERSITY OF CRAIOVA
THE FACULTY OF HORTICULTURE**

**THE DEPARTMENT OF HORTICULTURE AND
FOOD SCIENCE**

**THE UNIVERSITY OF CRAIOVA
THE FACULTY OF HORTICULTURE**

TEACHING PACKAGE

SPECIALIZATION

LANDSCAPE

This is the course package of the specialization Landscape from the University of Craiova/ the Faculty of Horticulture/The Department of Horticulture and Food Science, valid for the academic year 2016 – 2017.

UNIVERSITY OF CRAIOVA

Faculty of Horticulture

Department: Horticulture and Food Science (D29)

Domain: Horticultura

Programme: Landscaping

Sem. I	Sem. II
Nr. weeks/sem. if = 14	

CURRICULUM – Second year

Disciplina	Cod	FD D S C	OB OP F	Opt. 0/21	C1	S1	L1	P1	CT1	FV1	C2	S2	L2	P2	CT2	FV2
DISCIPLINE OBLIGATORII SI OPTIONALE																
Ecology and Environment protection	D29PEL317	FD	OB	1	2		2		5	V						
Plant physiology	D29PEL318	FD	OB	1	2		2		5	E						
Ornamental arboriculture I	D29PEL319	D	OB	1	2		2		5	E						
Building materials and constructions in landscaping	D29PEL320	S	OB	1	2		1		5	E						
General flower growing	D29PEL321	D	OB	1	2		2		5	E						
Machinery for green spaces	D29PEL322	D	OB	1	2		1		5	V						
Ornamental arboriculture II	D29PEL423	D	OB	1							2		2		5	E
General entomology	D29PEL424	D	OB	1							2		2		4	E
General phytopathology	D29PEL425	D	OB	1							2		2		4	E
Ornamental vegetable growing	D29PEL426	D	OB	1							2		2		4	E
Micro breeding	D29PEL427	S	OB	1							2		2		4	V
Grass and flower plants	D29PEL428	S	OB	1							2		2		4	E
Practice (3weeks=90)	D29PEL429	S	OB	2										6.43	5	V
Physical education	D29PEL430	C	OB	1		1			1*	A/R		1			1*	A/R
TOTAL					12	0	10	0	30		12	0	12	0	30	
FACULTATIVE DISCIPLINES																
TOTAL					0	0	0	0	0		0	0	0	0	0	
					22					24						

UNIVERSITY OF CRAIOVA

Faculty of Horticulture

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Programme: Landscaping

Sem. I	Sem. II
Nr. weeks/sem. if ≠ 14	

CURRICULUM –Third year

Disciplina	Cod	FD D S C	OB OP F	Opt. 0/21	C1	S1	L1	P1	CT1	FV1	C2	S2	L2	P2	CT2	FV2
DISCIPLINE OBLIGATORII SI OPTIONALE																
Ornamental fruits growing	D29PEL531	D	OB	1	2		2		5	E						
Special phytopathology	D29PEL532	S	OB	1	2		2		5	E						
Special enthomology	D29PEL533	S	OB	1	2		2		5	E						
Territorial and urbanistic planning I	D29PEL534	S	OB	1	2		2		5	E						
Earthworks and roads	D29PEL535	C	OB	1	2		1		5	E						
Territorial and urbanistic planning II	D29PEL638	S	OB	1							2			2	4	E
Land improvements	D29PEL639	D	OB	1							2		1	1	4	E
Landscape management	D29PEL640	S	OB	1							1		2		4	V
Utility networks	D29PEL641	S	OB	1							2		1		4	V
Landscape architecture	D29PEL642	S	OB	1							2		1	1	5	E
Ornamental vine growing	D29PEL643	D	OB	1							2		2		5	E
Practice (3weeks=90)	D29PEL644	S	OB	2										6.43	4	V
Technique of works in landscaping	D29PEL536	S	OP	0	1		2		5	V						
Experimental design	D29PEL537	S	OP	1	1		2		5	V						
TOTAL					11	0	11	0	30		11	0	7	4	30	
FACULTATIVE DISCIPLINES																
					0	0	0	0	0		0	0	0	0	0	
TOTAL					0	0	0	0	0		0	0	0	0	0	
					22					22						

UNIVERSITY OF CRAIOVA

Faculty of Horticulture

Department: Horticulture and Food Science (D29)

Domain: Horticulture

Programme: Landscaping

Sem. I	Sem. II
Nr. weeks/sem. if = 14	10

CURRICULUM –Fourth year

Disciplina	Cod	FD D S C	OB OP F	Opt. 0/≥1	C1	S1	L1	P1	CT1	FV1	C2	S2	L2	P2	CT2	FV2
DISCIPLINE OBLIGATORII SI OPTIONALE																
Computer-aided landscape design I	D29PEL745	S	OB	1	2		2		5	E						
Biodiversity conservation	D29PEL746	S	OB	1	2		1		5	E						
Green spaces design	D29PEL747	S	OB	1	2		1	1	5	E						
Production of dendrological material	D29PEL748	S	OB	1	2		2		5	V						
Ecological management	D29PEL749	S	OB	1	2	1			5	E						
Computer-aided landscape design II	D29PEL852	S	OB	1							2		2		4	E
Environmental legislation and policies	D29PEL853	S	OB	1							2	1			3	V
Ornamental plant breeding	D29PEL854	D	OB	1							2		2		4	E
Arrangement and maintenance green spaces	D29PEL855	S	OB	1							2		2		4	E
Marketing	D29PEL856	D	OB	1							1	1			2	V
Practice (4weeks=120)	D29PEL857	S	OB	2									8.57	10		V
Floral compositions	D29PEL750	S	OP	1	2		2		5	E						
Accountancy	D29PEL751	C	OP	0	2		2		5	E						
Cultivated medicinal and aromatic plants	D29PEL858	S	OP	1							2		2		3	V
Restoration of parks and gardens	D29PEL859	S	OP	0							2		2		3	V
TOTAL					12	1	8	1	30		11	2	8	0	30	

CURRICULUM

1ST YEAR OF STUDY

1ST SEMESTER

MATHEMATICS AND STATISTICS

CODE: D29PEL101

CREDITS: 4

COURSE HOLDER: Senior Lecturer, PhD, Cătălin ȘTERBEȚI

YEAR/SEMESTER: 1st Year / 1st Semester

NUMBER OF HOURS PER WEEK: 1hour course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: fundamental

COURSE OBJECTIVES: The knowledge of fundamental concepts of the theory of probabilities, of the rules of probability calculation, of the main probability schemes, of the notion of variates. The knowledge of the main notions of mathematical statistics, the analyzing of a phenomenon with the help of mathematical statistics (the statistical analysis of the phenomenon).

THEMES: Matrix calculation. Elements of linear programming. Events and probabilities. Variate. Basic notions of mathematical statistics. Characteristic values of some statistic series. Statistics indicators. Statistical processing of experimental data.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 70%, final answers for workshops 10%, periodical assessment through practical tests 10%, continuous assessment throughout semester 10%.

ASSESSMENT TYPE exam

BIBLIOGRAPHY:

1. Balan V., Sterbeti C., Capitole de matematici aplicate. Programare liniara.Teoria probabilitatilor. Statistica matematica, Editura Reprograph, Craiova, 2005
2. Ceapoiu N.- Metode statistice aplicate in experimente agricole si biologice, Editura Agro-Silvica, Bucuresti, 1968
3. Rumsinski L.Z.-Prelucrarea matematica a datelor experimentale, Editura Tehnica, Bucuresti, 1974
4. Stillwell J., Mathematics and Its History, Editura Springer, 2010
5. Vladimirescu I., Statistica matematica, Editura Universitara, Craiova,1998

BOTANY I

CODE: D29PEL102

CREDITS: 5

COURSE HOLDER: Senior Lecturer, PhD, Daniel RĂDUȚOIU

YEAR/SEMESTER: 1st Year / 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: main subject

COURSE OBJECTIVES: Ability to correlate the morphological and structural notions of plants with landscape value in the technological process, in order to obtain productive performance results. Understanding and acquiring knowledge of plant morphology and anatomy.

THEMES: Objective and methods of investigation. Botanical subdivisions. Development of botany in the world and in Romania. Structure of course. Plant cytology. The prokaryotic and eukaryotic cell. Eukaryotic plant cell. Cell division. Plant histology. Definition of tissues. Classification: meristematic and definitive tissues: protective, fundamental, conductive, mechanical, secretory and glandular. Organography. The plant organ. Vegetative and reproductive organs (morphology, anatomy and types).

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Final theoretical exam 70%, final practical exam 30%.

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

- Andrei M., 1978. Anatomia plantelor. Edit. Did. și Ped. București.
Andrei M., 1997. Morfologia generală a plantelor. Edit. Enciclopedică București.
Andrei M. și colab., 2003. Practicum de Morfologia și anatomia plantelor. Edit. St. Agricole București.
Bavaru A., Bercu R., 2002. Morfologia și anatomia plantelor. Edit. Exponto Constanța.
Burăscu P., 2002. Botanică, vol. I Morfologia plantelor. Edit. Univ. din Oradea.
Costache I., 2009. Botanica I. Vol. 1. Morfologia și Anatomia plantelor. Fundația-Editura „Scrisul Românesc”. Craiova. 337 pag.
Deliu C., 1992. Morfologia și anatomia plantelor, vol. I. Edit. Univ. Babeș – Bolyai, Cluj Napoca.
Simeanu V., Popescu Gh., 1980. Morfologia și anatomia plantelor. Reprografia Univ. din Craiova.

PEDOLOGY

CODE: D29PEL103

CREDITS: 5

COURSE HOLDER: Senior lecturer, PhD, FLORINA GRECU

YEAR/SEMESTER: 1st Year /1st Semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: fundamental

COURSE OBJECTIVES The knowledge of natural factors of earth formation, evolution way and main properties. Characterization of earth types in Romania and the establishment of their suitability for different cultures and use ways. Laboratory determination of main properties of soils.

THEMES: The object and role of Pedology and their importance in the development of agricultural production. Factors of pedogenesis and their role in the formation of soils. Formation and composition of mineral parts of soils. Formation and composition of organic parts of soils. Formation and composition of soil profile. Physical and physical-mechanical properties of soil. Hydro physical, aeration and thermic properties of soil. Chemical properties of soil. Classification and description of soils in Romania. Mapping and classification of agricultural fields.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 80%, final answers for workshops 20%

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Popescu Vasile, C., Grecu Florina – Pedologie -.EdituraUniversitaria, Craiova, 2008.
2. Popescu, C., Grecu Florina - Pedologie – Geneza, alcătuirea și proprietățile solurilor, EdituraSitech Craiova, 2013.
3. Popescu, C., Grecu Florina - Pedologie – Clasificarea și caracterizarea solurilor României, Editura Sitech Craiova, 2014.
4. Mihalache M., Ilie L. – Pedologie - Solurile României, Editura Do-Minor București, 2008..
5. Paulette Laura – Pedologie, Editura Todesco, Cluj-Napoca, 2008..

AGROCHEMISTRY

CODE: D29PEL104

CREDITS: 5

COURSE COORDINATOR: PhD.Associate Professor. Ana Maria DODOCIOIU

YEAR / SEMESTER: 1st Year / 1st Semester

HOURS PER WEEK: 2 hours of course, 2 hours of practical works

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Knowledge of the chemical composition of plants in order to establish the necessary elements nutritive for their nutrition and doses of chemical fertilizers and organic Knowledge of the agrochemical soil in order to harmonize existing soil nutrients in crop plants and filling requirements deficit by fertilizers. Knowledge of the acids soil, alkaline and those anthropogenic degraded to establish measures to improve their agrochemical and fertilization

TOPICS: Purpose and development of agrochemistry, agrochemicals, Fundamentals of fertility in relation to horticultural plant biology, The soil as a source of nutrients for horticultural plants, Ionic composition improvement and raising the productive potential of acids soils, saline and alkaline, Fertilizers as a means to increase horticultural production and maintenance of soil fertility, Control of soil fertility status for horticultural plants by agrochemical methods, Principles and methods of rational use of fertilizers in fruit growing, viticulture and vegetables.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: answers to exam 80%, final answers to Laboratory works 20%

ASSESSMENT FORM: exam

REFERENCES

1. Dodocioiu Ana Maria, M. Susinski, R. Mocanu, 2009. Agrochimie. Editura Sitech, Craiova.
2. Avarvarei I. si colab. 1977-Agrochimie-Editura Sitech, Craiova.
3. Davidescu D., Velicica Davidescu, 1985-Agrochimie Horticola, Editura Academiei RSR.
4. Mocanu R., Ana Maria Dodocioiu., 2007-Agrochimie, Editura Sitech, Craiova
5. Rusu M. si colab., 2005-Tratat de Agrochimie, Editura Ceres, Bucuresti.

INFORMATICS

CODE: D29PEL105

CREDITS: 4

COURSE HOLDER: Associate Professor, PhD, Doina ROȘCA

AN/SEMESTRU: Ist Year / Ist Semester

NUMBER OF HOURS PER WEEK: 1 hour of course, 2 hours of practical works

NUMBER OF WEEKS: 14

COURSE TYPE: fundamental discipline

COURSE OBJECTIVES: Acquiring the knowledge and skills necessary to use the computer as a working tool. Creating skills in using program packages dedicated to specific tasks: word processing, tables, charts, databases. Ability to solve problems specific to the specialization by using dedicated IT packages. Creating computer models for solving horticultural problems.

TOPICS: Windows operating systems – overview. Microsoft WORD: Create/save/open /close file. Page Setup: page margins, page sizes, page orientation, header and footer options View Print Preview. Move/copy/paste; Select text; Search and replace, move to document. View Document; Header and footer preview - header and footer creation, ruler, toolbars. Insert to file: page numbers; Page breaks/section breaks; Footnotes; Insert and edit a drawing, diagram, object, text box. Text formatting - specifying all formatting attributes. Create lists numbered/ with bullets/hierarchies; Application borders and shadows. Formatting text in columns, specifying TAB positions and leader characters. Insert table, work with tables. Creating drawings: Drawing toolbar; Inserting equations in the document.

TEACHING LANGUAGE : Romanian

KNOWLEDGE ASSESSMENT: answers to exam 70%, final answers to Laboratory works 30%

ASSESSMENT TYPE: verification

REFERENCES:

1. Doina Roșca, Informatică managerială, Editura Universitaria, Craiova, 2003.
2. Mircea Băduț, Informatica în management, Eitura Albastră, Cuj apoca, 2003.
3. Steve Johnson, Microsoft Office Word 2007, Editura Niculescu, 2008.
4. *** Microsoft Office documentation.

DRAWING AND GRAPHIC REPRESENTATIONS

CODE: D29PEL106

CREDITS: 5

COURSE HOLDER: Senior Lecturer Gheorghe POPA MITROI

AN/SEMESTRU: Ist Year / Ist Semester

NUMBER OF HOURS PER WEEK: 2 hours course, 1 hour workshop

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Knowledge and understanding: the use of computer as a working instrument. Explanation and interpretation: informatics' modeling of some engineering processes; forming and developing the capacity of spatial thinking in modeling industrial shapes. The role of information nowadays. The approach, on different complexity levels, of graphic instruments necessary to a correct accomplishment of technical documentation; exemplification of interactions with other programs for the information included in the models created by AutoCAD.

THEMES: Concepts of computerized integration of industrial activities. AutoCAD interface. Representation types and techniques in engineering graphics. Editing models and selection sets. The main editing drives in two-dimensional space. Hachure and annotation models. Blocks and attributes. External references. Quotation of drawings. Display methods. Tri-dimensional representation. 3D editing. Modeling of solids. Interaction ways with other packets of programs.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: answers to exam 70%, workshop 30%

ASSESSMENT TYPE: exam

BIBLIOGRAPHY

1. Enache I., Ivănceanu T., Buzilă V., 1982. Geometrie descriptivă și desen tehnic. Probleme și aplicații. E.D.P. București.
2. Iancău V., Bărbat V., Rusu I., Zetea E., Roșca S. 1982. Reprezentări geometrice și desen tehnic. E.D.P. București.
3. Popa Gh., 2015. Desen și reprezentări grafice, note de curs, Craiova.
4. Popescu T., 2004. Geometrie descriptiva, Editura Universitaria, Craiova.

ENGLISH 1

CODE: D29PEL215

CREDITS: 2

COURSE COORDINATOR: Ph. D, Senior Lecturer, Costina Denisa BĂRBUCEANU

YEAR / SEMESTER: 1st Year / 1st Semester

HOURS PER WEEK: 2 hours of seminar

NUMBER OF WEEKS: 14

COURSE TYPE: optional

COURSE OBJECTIVES: Improving the ability to understand spoken English and specific vocabulary texts written in English, using a reference material especially designed for students of the Faculty of Horticulture, but also for those who want to learn ESP vocabulary in context. Practice of important vocabulary and grammar practice, tackle four skills, reading, listening, speaking and writing, explain specific vocabulary, and grammar lessons which are thought in detail, with exercises that give students useful practice in this particular area. True or false exercises, gap filling, matching the words with their definition, translations, in context dialogues and lessons with key bolded words are really selected for students to understand and use it correctly. Deepening the main grammar rules of English in a modern way, problematic, requiring students to learn but also to think.

Consolidation of skills to dialogue, describe, report. Emphasizing the practical nature of learning, the course is ment to stimulate students' interest in written and spoken language, to improve knowledge and communication in English.

TOPICS: Focus on language: Present Tense Simple/ Continuous, Vocabulary: Landscape. Scale and heterogeneity (incorporating composition, structure, and function). Patch and mosaic. Boundary and edge. Ecotones, ecoclines, and ecotopes. Disturbance and fragmentation. Theory. Application. Research directions.

TEACHING LANGUAGE: English

KNOWLEDGE ASSESSMENT: exam answers 80%, theoretical and practical checking 20%

ASSESSMENT FORM: Checking

REFERENCES

1. Cerăceanu, Denisa-Costina, English for Biology Students, Editura Universitaria, Craiova, 2007.
2. Gălățeanu –Firnoagă, Georgiana; Parks, Debora, Exerciții și teste de gramatică engleză, Editura Paralela 45, București, 2003.
3. Chilărescu, Mihaela; Paidos Constantin, Proficiency in English, Institutul european, 2001.
4. Pawlowska, Barbara, Kempinski, Zbigniew, Teste de limba engleză, Ed. Teora, București, 1997.
5. Nedelcu, Carmen, English Grammar, Editura Universitaria, Craiova, 2004.

FRENCH 1

CODE: D29PEL216

CREDITS: 2

COURSE COORDINATOR: Ph. D, Senior Lecturer Ileana Mihaela CHIRIȚESCU

YEAR / SEMESTER: 1st Year / 1st Semester

HOURS PER WEEK: 2 hours of seminar

NUMBER OF WEEKS: 14

COURSE TYPE: optional

COURSE OBJECTIVES:

Improving the ability to understand spoken French and specific vocabulary texts written in French, using a reference material especially designed for students of the Faculty of Horticulture, Landscape Specialization, but also for those who want to learn vocabulary in context. Practice of important Landscape vocabulary and grammar practice, tackle four skills, reading, listening, speaking and writing, explain specific vocabulary, and grammar lessons which are thought in detail, with exercises that give students useful practice in this particular area. True or false exercises, gap filling, matching the words with their definition, translations, in context dialogues and lessons with key bolded words are really selected for students to understand and use it correctly. Deepening the main grammar rules of French in a modern way, problematic, requiring students to learn but also to think.

Consolidation of skills to dialogue, describe, report. Emphasizing the practical nature of learning, the course is ment to stimulate students' interest in written and spoken language, to improve knowledge and communication in French.

TOPICS: Focus on language, Vocabulary: Landscape. Scale and heterogeneity (incorporating composition, structure, and function). Patch and mosaic. Boundary and edge. Ecotones, ecoclines, and ecotopes. Disturbance and fragmentation. Theory. Application. Research directions.

TEACHING LANGUAGE : French

KNOWLEDGE ASSESSMENT: exam answers 80%, theoretical and practical checking 20%

ASSESSMENT FORM: Checking

REFERENCES

1. Chirițescu, Ileana Mihaela, Le Français pour les agronomes, les horticulteurs et les chimistes, Editura Universitaria, Craiova, 2016.
2. Bernard Maurice, Saison André, Avond Guy, Le Bail Helene, Chimie, Éditions Fernard Nathan, Paris, 1979.
3. Dincă, Daniela Liliana, Syntaxe de la phrase noyau en français contemporain, Editura Universitaria, Craiova, 2006.
4. Fournier, Jean; Lafarge, Alain; Bastide, Maurice; Mouchel, Gérard; Vredon, Renée – Français 6e Lire, Observer, s'Exprimer, Bordas, Paris, 1981.
5. Negreanu, Aristița, Dicționar de expresii francez-român Dicex, ediția a III-a revizuită și adăugită, Editura All Educațional, București, 2007.
6. Riess, Jean, Premiers pas vers un sang artificiel (une application des fluorocarbures), extrait d'un article paru dans le courrier du CNRS, n° 18, 1975.
7. ***Mon cahier de révisions, CE1, Éditions Éclairs de Plume, 2010.
8. ***Les cahiers de révisions, CM1, Éditions Éclairs de Plume, 2010.
9. ***Cahier de révisions, CE1, Éditions Éclairs de Plume, 2010.

PHYSICAL EDUCATION I

CODE: D29PEL214

CREDITS: 1

COURSE HOLDER: Senior Lecturer, Ph D, Daniel CIOCĂNESCU

YEAR/SEMESTER: 1st year/ 1st semester

NUMBER OF HOURS PER WEEK: 1 hour practical course

NUMBER OF WEEKS: 14

COURSE TYPE: main subject

COURSE OBJECTIVES: Discipline aims at forming the theoretical, practical and methodical skills for individual or group practice for a healthy lifestyle; Awareness of students about the role and importance of practicing physical exercise.

THEMES: Athletics: school elements of jumping and running; Application paths combined with treadmills; Application paths combined with jumping elements; Application paths combined with equilibrium, escalation, climbing, etc.: Sports games: volleyball, badminton; Bilateral games under similar competitions conditions.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Assessment through practical tests 80%, continuous assessment throughout semester 20%

ASSESSMENT TYPE: A/R

BIBLIOGRAPHY:

1. Barbu D., (2010), Fotbal. Curs de bază pentru studenți. Craiova, Edit. Universitaria
2. Dragomir, M., Albină, A., (2006), Atletism în școală, Ed. Universitaria, Craiova
3. Dragnea A. C-tin. și colab, (2006) - Educație fizică și sport - teorie și didactică. Ed. FEST, București.
4. Orbanescu Dorina, (2008), Gimnastica – componentă a educației fizice școlare, Ed.Universitaria, Craiova
5. Orbanescu Dorina, 2008, Gimnastica- componentă a educației fizice școlare, Ed. Universitaria Craiova
6. Rață G., Ghe. Rață (2008) – Educația fizică și metodică predării ei – Editura PIM, Iași.
7. Ungureanu, A. (2009) - Metodica educației fizice și sportului - Editura Universitaria, Craiova.
8. Țifrea, C., (2002) - Teoria și metodică atletismului - Editura Doreco, București.

2ND SEMESTER

BOTANY II

CODE: D29PEL207

CREDITS: 4

COURSE HOLDER: Senior Lecturer PhD, Daniel RĂDUȚOIU

YEAR/SEMESTER: 1st year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: main subject

COURSE OBJECTIVES: The ability to clearly decipher the diversity of the living world, to highlight both the transition from the lower to the higher (evolution) and the downward of some groups from others (phylogeny). The ability to identify the correlation between the characteristics and knowledge of the species of plants of landscape value studied in the specializations of the following years of study, their systematic classification in the higher taxonomic units.

THEMES: Introduction: Definition and object of study; Research methods; Systematic units (taxa); Plant nomenclature; Short history; Classification systems. Regnum Plantae sensu lato: What are plants (Plantae)?; Taxonomic considerations; The diversity of green plants sensu stricto; Phylogeny; Green algae: Charophyta. General characters; The importance of green algae. Regnum Plantae sensu strictissimo: Diversity and classification; Bryophytes - Non-vascular plants; Tracheophytes (Cormobionta, Tracheobionta) - Plantae vasculares: The origin and meaning of tracheophytes evolution; General characters; Systematic. Phyl. Pteridophyta (Ferns) and Spermatophyta (gymnosperm and angiosperms); General characters, scientific and practical importance. Representatives.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Final theoretical exam 70%, final practical exam 30%.

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Buia Al. &al. 1965. Botanica agricolă, vol. I și II., Edit. Agro-Silvică, București.
2. Ciocârlan V. 2009. Flora ilustrată a României. Pteridophyta et Spermatophyta. 1038 pag. Edit. Ceres, București.
3. Morariu I. 1965. Botanica generală și sistematică. Ediția a II-a. Edit. Did. și Ped., București
4. Păun M. & al. 1980. Botanica. Edit. Did. și Ped., București

5. Popescu Gh. 2000. Botanica. Edit. Universitaria, Craiova
6. Busuioc G. & Răduțoiu D. 2010. Botanica și fiziologia plantelor. Edit. Sitech. Craiova.

TOPOGRAPHY

CODE D29PEL208

CREDITS: 4

COURSE HOLDER: Professor, PhD, Aurel CĂLINA

YEAR/SEMESTER: 1st year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours course, 1 hour of practical course, 1 hour of project

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: The elaboration of an action plan, on long or short term, of the landscape development of a space; Execution of measurements for distances and surfaces; Laying down topographic plans; The use of topographic machines; Updating plans and maps; The measurement of level differences and the calculation of height points; The forming of height plans and the indication of contours; The explanation of calculation formulae specific to tracing and control works; Choosing the best solutions according to the actual field situations, in order to trace and control the engineering works. Projecting and forming of support networks for topographic elevation, land register elevations and other engineering works. Topographic elevations necessary to the elaboration of topographic and thematic plans and maps.

THEMES: Basic general and topographic notions. Measurement units in topography. The topographic circle and the trigonometric functions; Orientations and neutral axes; Errors in topography; Marking and signaling points; Measurement of angles and distances; The method of closed plan traversing; The method of supported plan traversing; Elevation of details; Intersection and retro-intersection; Establishing plans; Calculation and detachment of surfaces; Leveling; Methods of geometric leveling; Trigonometric leveling; Surfaces' leveling; Representation of relief.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Final exam answers 50%, periodical assessment through tests 20%, continuous assessment throughout semester 30%.

ASSESSMENT TYPE: exam+ project

BIBLIOGRAPHY

1. Călina A. și colab., – Topografie generală și inginerească, Edit. Sitech, Craiova, - 2010.
2. Călina A. și colab., – Topografie inginerească, Edit. Sitech, Craiova, - 2014
3. Călina J. și colab., - Caiet de practică pentru Măsurători terestre și Cadastru, Universitaria Craiova,-2012
4. Ionescu P. și colab., – Topografie generală și inginerească, Edit. Did. și Pedagogică București, -1975.
5. Leu I. și colab.,– Topografie și Cadastru, Editura Universul, București, - 2002.
6. Mureșan D., Budiu V., – Topografie și Desen tehnic, Tipogr. Agronomia Cluj-Napoca, - 1988.
7. Ursea V. și colab., – Topografie de construcții, Curs Institutul de Construcții, București, - 1986.
8. Ediție îngrijită de Cons. Fac. de Geodezie – Măsurători terestre – Fundamente - Vol. I, II, III, Edit. Matrix Rom, București, - 2002

DESCRIPTIVE GEOMETRY AND PERSPECTIVES

CODE D29PEL209

CREDITS: 4

COURSE HOLDER: Professor, PhD, Fanel IACOBESCU

YEAR/SEMESTER: 1st year/ 2nd semester

NUMBER OF HOURS PER WEEK: 1 hour course, 1 hour practical course

NUMBER OF WEEKS: 14

COURSE TYPE: fundamental

COURSE OBJECTIVES: Ensuring the necessary knowledge concerning the involvement of landscape domain in the representation system of perspective and descriptive geometry. The acquisition of a professional language necessary to the interdisciplinary imposed working.

THEMES: Perspective geometry, draught, and double projection. The representation of point. The representation of axis. The plan. Methods of projecting transformations (methods of descriptive geometry). Representation of geometric solids. Visualizing a volume from different three-element

reunion. Sectioning of geometric solids. Developing of geometric solids. Maximum inscribed volumes and tangent solids. Intersections of surfaces and geometric solids. Rotation of volumes. Perspectives.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Final exam answers 70%, periodical assessment through tests 30%

ASSESSMENT TYPE: assessment

BIBLIOGRAPHY

1. Enache M. Și I. Ionescu - Geometrie descriptivă și perspectivă, Ed. Did.și Ped., București,1983;
2. Tănăsescu A. - Geometria descriptivă, axonometria și perspectiva, Ed. Tehnică, 1975
3. Tănăsescu A. - Perspectiva Ed. Did.și Ped., București,1971;
4. Teodoru Horia - Perspectiva, vol. 1+2, Ed. de Stat pentru Lit. și Artă, 1958;
5. Gheoghiu Adrian - Tehnica desenului perspectiv, Ed. Tehnică, 1959

CHEMISTRY

CODE D29PEL210

CREDITS: 4

COURSE HOLDER: Senior Lecturer, PhD, Ileana COJOCARU

YEAR/SEMESTER: 1st year/ 1st semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: fundamental

COURSE OBJECTIVES: Familiarization with notions related to the structure of atom and classification of elements; Understanding the electronic configuration of elements, and their atomicity. Acquiring the necessary knowledge in order to understand the different types of chemical bonds.

THEMES: Atoms. Atomic structure. Classification of elements. Molecules. Chemical bonds. Chemical thermodynamics. Chemical equilibriums. Solutions. Ionic equilibriums. Notions of chemical kinetics. Catalysis. Colloid status of matter. Oxidation and reduction.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 70%, final answers for workshops 30%

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Cojocaru Ileana, Chimie Analitică, Lucrări Practice de Laborator, Editura Sitech, Craiova, 2009.
2. Popescu V., I. Cojocaru, Chimie Generală, Editura Sitech, Craiova, 2009.
3. Pleniceanu M., C. Spînu, Chimie generală, Tipografia Universității din Craiova, 2006.
4. Pleniceanu M., M. Isvoranu, Analize fizico-chimice, Tipografia Universității din Craiova, 2003.
5. Pleniceanu M., Chimie analitică calitativă și cantitativă, Editura Universitaria, Craiova, 1995.
6. Spînu Cezar, Maria Pleniceanu, Chimie generală, Editura Universitaria, Craiova, 2007.

BIOPHYSICS AND AGRICULTURAL METEOROLOGY

CODE:D29PEL211

CREDITS: 4

COURSE COORDINATOR: Ph. D, Senior Lecturer , Rodica Aurelia Cimpoiașu

YEAR / SEMESTER: 1st Year / 2nd Semester

HOURS PER WEEK: 2 hours of course, 2 hours of practical works

NUMBER OF WEEKS: 14

COURSE TYPE: fundamental

COURSE OBJECTIVES: Knowledge of specific applications living and research equipment with importance in biophysics and agricultural meteorology; explain the phenomena, the processes, applications and devices according to the main meteorological parameters, environmental characteristics; interpret the evolution of the system based on changes in environmental factors.

TOPICS: Matter organisation. Elements of spectroscopy. Contact phenomena between liquid and solid. Molecular transport phenomena. Diffusion and osmosis. Introduction in biological thermodynamoics. The physical structure of the atmosphere. Solar radiation in the atmosphere and the

ground. Thermal regime of the soil and air. Condensation and water vapor condensation products. Rain fall. The climate of Romania and of Europe.

TEACHING LANGUAGE : Romanian

KNOWLEDGE ASSESSMENT: answers to exam 60 %, periodic answers to practical work 20 %, results to periodic control works 20 %.

ASSESSMENT FORM: exam

BIBLIOGRAPHY

1. Berkley, C. Kittel Et. All., 1981- Cursul De Fizică, vol.1-5, Ed. Didactica și Pedagogică, București, 1981.
2. Cimpoiasu Rodica, Lucrări practice. Biofizică și Meteorologie, Editura Alma, Craiova, 2010.
3. Dragomirescu Elena, Liviu Enache, Biofizică, București, 1992.
4. Moisil George C., 1988 – Termodinamica. Ed. Academiei Romane, București.
5. Nicula Al., 1982 - Electricitate și magnetism, Ed. Didactica și Pedagogică, București
6. Pop Gheorghe, 1988 -Introducere în meteorologie și climatologie, București.
7. Popescu Aurel, Elemente de biofizică moleculară și supramoleculară, București, 1997.

THE HISTORY OF PARKS AND GARDENS ART

CODE: D29PEL212

CREDITS: 4

COURSE HOLDER: Senior Lecturer Eng., PhD, Manuela Adriana MANDĂ

YEAR/SEMESTER: 1st Year / 2nd Semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours workshop

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: The knowledge of the evolution of concepts in the art of gardens, focusing on general compositional features of different styles, under the context of specific geographic, historic, economic, social and cultural conditions.

THEMES: The importance of studying the history of landscape architecture; a short presentation of the evolution of concepts in the art of gardens. Gardens of Antiquity: Mesopotamian Gardens; Gardens of Ancient Egypt; Persian Gardens; Ancient Greek Gardens; Ancient Roman gardens. The art of gardens in Middle Age (5th – 11th centuries): Byzantine Gardens; Medieval Gardens of Western Europe; Islamic Gardens; Spanish Arab Gardens. The Gardens of Middle East- Chinese Gardens; Japanese Gardens. The art of gardens during Renaissance and Baroque. Landscape gardens. Mixed style in the art of gardens. Contemporary views in the art of gardens. Gardens and parks in Romania.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 50%; presentation seminar theme, participation during seminar talks 50 %.

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Glaman Ghe., 2003 - Floricultura si arta gradinaritului la ramani. Ed. Ceres.
2. Iliescu Ana-Felicia, 2003 - Arhitectura peisagera. Ed. Ceres.
3. Marcus R., 1958 – Parcuri si gradini in Romania. Ed. tehnica.
4. Negrutiu Filofteia, 1981- Spatii verzi. Ed. Didactica si pedagogica Bucuresti.
5. Preda M., Palade L., 1973 – Arhitectura peisagera. Ed. Ceres.
6. Vișoiu Dagmar, 2004 - Evoluția artei grădinilor și parcurilor.Ed.Mirton Timișoara.
7. Vișoiu Dagmar, 2001 – Istoria grădinilor și parcurilor. Ed. Mirton Timișoara.

PRACTICE

CODE: D29PEL213

CREDITS: 4

COURSE COORDINATOR: Senior Lecturer, PhD, Manuela MANDĂ

YEAR / SEMESTER: 1st year/ 2nd semester

NUMBER OF HOURS PER WEEK: 30

NUMBER OF WEEKS: 3

COURSE TYPE: domain

COURSE OBJECTIVES: The purpose of the practical training is to form aptitudes and skills appropriate to the specific activities of horticulture and landscape. Acquiring the practical skills of the knowledge obtained at the specialized courses, regarding the field identification of the studied plant species, their harvesting and preservation, the recognition and description of the soil profile, the study of some soil properties on terrain, the identification of the nutrition disorders of the horticultural plants.

TOPICS: Methods of collecting and preserving vascular plants to achieve herbaria. Identification of the main morphological types of roots, stems, leaves, flowers and fruits. Identification of different plants found in the field by means of dicotomic keys. Soil analysis on land (location, orientation and execution of the soil profile). Description of the soil profile determining the following morphological properties: number, sequence and horizon thickness; Color of horizons (defined by the three parameters: hue, value and chrome), using the Munsell determinant; Texture and structure of horizons; Porosity, compactness; Neoformations and inclusions of the soil; The appreciation of soil moisture; Appreciation of humus content; The qualitative determination of poorly soluble carbonates; The qualitative determination of the main soluble salts; Determination of pH value. Characterization of plant nutrition status. Fertilization of plants grown on nutrient substrates. Presentation of the topographic equipment and how to work with them. Executing distance and surface measurements. Knowledge of landscape patrimony, discovery of elements characteristic of urban landscape.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: Answers to the final evaluation 100%

ASSESSMENT FORM: verification

REFERENCES:

1. Călina A. și colab., 2014. Topografie inginerească. Editura Sitech, Craiova.
2. Costache I., 2011. Practicum de Botanică I. Editura Universitaria Craiova.
3. Dodocioiu Ana Maria, Susinski M., Mocanu R., 2009. Agrochimie. Editura Sitech, Craiova.
4. Popescu C., Grecu Florina, 2011. Pedologie - Lucrări practice. Editura Universitaria, Craiova.

ENGLISH II

CODE: D29PEL215

CREDITS: 2

COURSE COORDINATOR: Ph.D, Senior Lecturer, Costina Denisa BĂRBUCEANU

YEAR / SEMESTER: 1st Year / 2nd Semester

HOURS PER WEEK: 2 hours of seminar

NUMBER OF WEEKS: 14

COURSE TYPE: Optional

COURSE OBJECTIVES: Improving the ability to understand spoken English and specific vocabulary texts written in English; using a reference material especially designed for students of the Faculty of Horticulture, but also for those who want to learn ESP vocabulary in context. Practice of important vocabulary and grammar practice, tackle four skills, reading, listening, speaking and writing, explain specific vocabulary, and grammar lessons which are thought in detail, with exercises that give students useful practice in this particular area. True or false exercises, gap filling, matching the words with their definition, translations, in context dialogues and lessons with key bolded words are really selected for students to understand and use it correctly. Deepening the main grammar rules of English in a modern way, problematic, requiring students to learn but also to think. Consolidation of skills to dialogue, describe, report. Emphasizing the practical nature of learning, the course is ment to stimulate students' interest in written and spoken language, to improve knowledge and communication in English.

TOPICS: Topological ecology Organism-centred. Analysis of social-ecological systems using the natural and social sciences and humanities. Ecology guided by cultural meanings of lifeworldly landscapes.

TEACHING LANGUAGE: English

KNOWLEDGE ASSESSMENT: exam answers 80%, theoretical and practical checks 20%

ASSESSMENT FORM: Checking

REFERENCES

1. Cerăceanu, Denisa-Costina, English for Biology Students, Editura Universitaria, Craiova, 2007.

2. Gălățeanu - Firnoagă, Georgiana; Parks, Debora, Exerciții și teste de gramatică engleză, Editura Paralela 45, București, 2003.
3. Chilărescu, Mihaela; Paidos Constantin, Proficiency in English, Institutul european, 2001.
4. Pawlowska, Barbara, Kempinski, Zbigniew, Teste de limba engleză, Editura Teora, București, 1997.
5. Nedelcu, Carmen, English Grammar, Editura Universitaria, Craiova, 2004.

FRENCH II

CODE: D29PEL216

CREDITS: 2

COURSE COORDINATOR: Ph.D, Senior Lecturer Ileana Mihaela CHIRIȚESCU

YEAR / SEMESTER: 1st Year / 2nd Semester

HOURS PER WEEK: 2 hours of seminar

NUMBER OF WEEKS: 14

COURSE TYPE: Optional

COURSE OBJECTIVES: Improving the ability to understand spoken French and specific vocabulary texts written in French; using a reference material especially designed for students of the Faculty of Horticulture, Landscape Specialization, but also for those who want to learn vocabulary in context. Practice of important Landscape vocabulary and grammar practice, tackle four skills, reading, listening, speaking and writing, explain specific vocabulary, and grammar lessons which are thought in detail, with exercises that give students useful practice in this particular area. True or false exercises, gap filling, matching the words with their definition, translations, in context dialogues and lessons with key bolded words are really selected for students to understand and use it correctly. Deepening the main grammar rules of French in a modern way, problematic, requiring students to learn but also to think. Consolidation of skills to dialogue, describe, report. Emphasizing the practical nature of learning, the course is ment to stimulate students' interest in written and spoken language, to improve knowledge and communication in French.

TOPICS: Topological ecology Organism-centred. Analysis of social-ecological systems using the natural and social sciences and humanities. Ecology guided by cultural meanings of lifeworldly landscapes.

TEACHING LANGUAGE : French

KNOWLEDGE ASSESSMENT: exam answers 80%, theoretical and practical checks 20%

ASSESSMENT FORM: Checking

REFERENCES

1. Chirițescu, Ileana Mihaela, Le Français pour les agronomes, les horticulteurs et les chimistes, Editura Universitaria, Craiova, 2016.
2. Dincă, Daniela Liliana, Syntaxe de la phrase noyau en français contemporain, Editura Universitaria, Craiova, 2006.
3. Fournier, Jean; Lafarge, Alain; Bastide, Maurice; Mouchel, Gérard; Vredon, Renée – Français 6e Lire, Observer, s'Exprimer, Bordas, Paris, 1981.
4. Negreanu, Aristița, Dicționar de expresii francez-român Dicex, ediția a III-a revizuită și adăugită, Editura All Educațional, București, 2007.
5. Riess, Jean, Premiers pas vers un sang artificiel (une application des fluorocarbures), extrait d'un article paru dans le courrier du CNRS, n° 18, 1975.
6. ***Mon cahier de révisions, CE1, Éditions Éclairs de Plume, 2010.
7. ***Les cahiers de révisions, CM1, Éditions Éclairs de Plume, 2010.

PHYSICAL EDUCATION II

CODE: D29PEL216

CREDITS: 1

COURSE HOLDER: Senior Lecturer, PhD, Daniel CIOCĂNESCU

YEAR/SEMESTER: 1st year/ 2nd semester

NUMBER OF HOURS PER WEEK: 1 hour practical course

NUMBER OF WEEKS: 14

COURSE TYPE: main subject

COURSE OBJECTIVES: Discipline aims at forming the theoretical, practical and methodical skills for individual or group practice for a healthy lifestyle; Awareness of students about the role and importance of practicing physical exercise.

THEMES: Gymnastics: Front and Band Exercises; Gymnastics Aerobics / Fitness; Application trails combined with treadmills; Application paths combined with equilibrium, escalation, climbing exercises; Sports games: basketball; Sports game: football; Bilateral games under similar competition conditions.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Assessment through practical tests 80%, continuous assessment throughout semester 20%

ASSESSMENT TYPE: A/R

BIBLIOGRAPHY:

1. Barbu D., (2010), Fotbal. Curs de bază pentru studenți. Craiova, Edit. Universitaria
2. Dragomir, M., Albină, A., (2006), Atletism în școală, Ed. Universitaria, Craiova
3. Dragnea A. C-tin. și colab, (2006) - Educație fizică și sport - teorie și didactică. Ed. FEST, București.
4. Orțanescu Dorina, (2008), Gimnastica – componentă a educației fizice școlare, Ed. Universitaria, Craiova
5. Orțanescu Dorina, 2008, Gimnastica- componentă a educației fizice școlare, Ed. Universitaria Craiova
6. Rață G., Ghe. Rață (2008) – Educația fizică și metodică predării ei – Editura PIM, Iași.
7. Ungureanu, A. (2009) - Metodica educației fizice și sportului - Editura Universitaria, Craiova.
8. Țifrea, C., (2002) - Teoria și metodică atletismului - Editura Doreco, București.

2ND YEAR OF STUDY

1ST SEMESTER

ECOLOGY AND ENVIRONMENTAL PROTECTION

CODE: D29PEL317

CREDITS: 5

COURSE HOLDER: Associate Professor, PhD, Liviu MĂRĂCINEANU

YEAR/ SEMESTER: 2nd year/ 1st semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: fundamental

COURSE OBJECTIVES: the knowledge of the structure, functions and relationships in the natural and anthropological ecosystems, the knowledge of the impact of anthropological activities upon environment, the knowledge of environmental protection ways.

THEMES: laws and ecologic principles, the Ecosystem (structure, functions, dynamics), Environmental degradation, Protecting nature

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 50 %, final answers in workshops 50 %

ASSESSMENT TYPE: assessment

BIBLIOGRAPHY:

Cotigă C. - Ecologie și protecția mediului – Ed. Sitech, Craiova, 2008.

Neacșu P., Olteanu I., Olteanu E.G. – Ecologie și protecția juridică a mediului. Ed. Universitaria. Craiova, 2000.

Popescu Maria, Popescu Miron – Ecologie aplicată, Ed. Matrixrom, București, 2000.

Șchiopu D. și colab. – Ecologie și protecția mediului. Ed. Ion Ionescu de la Brad, Iași, 2002.

PLANT PHYSIOLOGY

CODE: D29PEL318

CREDITS: 5

COURSE HOLDER: PhD Senior Lecturer Ion NICOLAE

YEAR/SEMESTER: 2nd Year / 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: fundamental

COURSE OBJECTIVES: Knowledge and interpretation of the physiological processes of plants and acquiring practical skills for the experimental demonstration of the main vital plant manifestations.

THEMES: Plant cell physiology. Water exchange between the plant cell and the external environment. Plant water regime (Absorption, transport and elimination of water by plants). Mineral Nutrition. Photosynthesis. Synthesis, transport and storage of organic substances in plants. Aerobic respiration and anaerobic respiration. Plant growth and plant development. Plant orientation and growth movements.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: answers to exam course 70 %; answers to laboratory works 30 %

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Boldor O. și colab. - Fiziologia plantelor, Editura Didactică și Pedagogică, București, 1982.

2. Burzo I., Toma S., Crăciun C., Voican Viorica, Dobrescu Aurelia, Delian Elena - Fiziologia plantelor de cultură, vol. I., Întreprinderea Editorial Poligrafică Știința, Chișinău, 1999.

3. Milică C. și colab. - Fiziologie vegetală, Editura Didactică și Pedagogică, București, 1982.

4. Nicolae I. - Fiziologia plantelor, Editura Sitech, Craiova, 2008.

5. Nicolae I. - Fiziologia plantelor horticole, Editura Sitech, Craiova, 2010.

6. Simeanu V., Olimid V. - Îndrumător de lucrări practice de fiziologia plantelor, Reprografia Universității, Craiova, 1990.

7. Șumălan R. - Fiziologie vegetală, Editura Eurobit, Timișoara, 2006.

ORNAMENTAL ARBORICULTURE I

CODE: D29PEL319

CREDITS: 5

COURSE HOLDER: PhD Senior Lecturer Marius GRUIA

YEAR/SEMESTER: 2nd Year / 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Knowledge of the importance of growing ornamental trees and bushes. Knowledge of the main biological, ecological, ornamental and technological features of ornamental trees and bushes in the sense of familiarizing with the possibilities of using in green areas.

THEMES: The biological bases of ornamental arboriculture. The technological bases of ornamental arboriculture. Production of planting material for ornamental species. The presentation of morphologic and landscape characters, ecology and ways of using ornamental wood species in green areas.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE INSTRUCTION: 70 % of the exam answers, 30 % of the final answers to workshops

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Iliescu Ana-Felicia, 2002 - Cultura arborilor și arbuștilor ornamentali, Edit. Ceres.
2. Iliescu Ana Felicia 2003, Arboricultura Ornamentala, Editura Ceres, Bucuresti
3. Parnia P, s.a., 1992- Producerea, pastrarea si valorificarea materialului saditor pomicol si dendrologic, Ed. Ceres Bucuresti

BUILDING MATERIALS AND LANDSCAPE CONSTRUCTIONS

CODE D29PEL320

CREDITS: 5

COURSE HOLDER: Professor, PhD, Dragomir BRUMAR

YEAR/SEMESTER: 2nd Year / 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours course, 1 hour practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Knowledge of energy forms used in landscape, of the possibilities to obtain and transform them into mechanical energy. The understanding of objectives and of the importance of mechanization in landscape. The interpretation of phenomena taken place during the transformation of different types of energy into mechanical energy and versus. The advantages and disadvantages of their use. The use of some machines, stands, graphics, the reading and interpretation of data and the applying of their results in order to obtain some exploiting performances for agricultural machines.

THEMES: Types of energy used in agriculture. Obtaining mechanical energy. Materials used in the construction of B.E. Driving mechanism. The real cycle of transforming thermal (caloric) energy into mechanical energy. Driving mechanism and distribution mechanism. Role. Construction. Functioning. The circular diagram of gas distribution. Supplying of thermal engines. Fuel-air mixture. Supplying installation of spark ignition engines. Construction. Functioning. Supplying installation of auto-spark ignition engines. Construction. Functioning. Construction and functioning of injection pumps and of injectors. Lubrication plant, cooling plant. Burning plant. Construction and running. Transmissions used in B.E. Clutches, banjoes, differentials. Working equipment used in the construction of B.E.P.A. Haulage feature. Course synthesis.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Exam/collocutional (final assessment) answers 40%, final answers for workshops 5%, periodical assessment through tests 5%, continuous assessment throughout semester 10%, activities such as homework/ essays/ papers/ translations/ projects etc. 15%

ASSESSMENT TYPE: assessment

BIBLIOGRAPHY

1. Brumar D., 2004 - Desen tehnic. Editura Hyperion. Craiova.
2. Brumar D., 2010 - Construcții civile-industriale-agricole. Editura Sitech. Craiova.
3. Brumar D., Cioboată M., 2015 - Materiale de construcții, Editura Sitech, Craiova
4. Buchman I., 2011 - Materiale de construcții. Editura Politehnica. Timișoara.
5. Matei F., Tiberiu D., 2007 - Prepararea materialelor de construcție. Editura MAST. București.
6. Popescu N., 1994 - Studiul materialelor. Editura Didactică și Pedagogică București.
7. Roșu Lucica, 2004 - Desen tehnic de construcții. Editura Matrix-Rom. București.
8. Stan D., 2004 - Construcții și mediu. Editura Matrix-Rom. București
9. Șerban Liliana, 2001 - Materiale de construcție. Editura Matrix-Rom. București.
10. Țonea A., 2004 - Materii prime și materiale. Editura Aramis. București.

GENERAL FLORICULTURE

CODE D29PEL321

CREDITS: 5

COURSE HOLDER: PhD. Senior Lecturer, Manuela Adriana MANDA

YEAR/SEMESTER: 2nd year/ 1st semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Aim of the discipline is to provide students with specialized knowledge regarding the biologic and ecologic features of floral plants, classification of floral plants, the bond between the origin and the needs of plants regarding the environmental factors, propagation methods, production technologies, harvesting, preserving and selling of ornamental plants.

THEMES: Definition, object of study, history and importance. The present state of ornamental plants' cultivation. Morphological and biological features. Classification of floral plants. The needs of floral plants towards ecologic factors and the reciprocal relationships that take place in the development of biologic cycle. Propagation of floral plants (generative and vegetative). Growing technology of ornamental plants in the field and in protected spaces. Harvesting, conditioning, preserving and selling of ornamental plants (cut flowers and pots).

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 60%; test results for practical course 40 %.

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Anton Doina, 2003 – Floricultura generala. Ed. Universitaria. Craiova.
2. Anton Doina, Carmen Nicu, 2006 - Inmultirea plantelor decorative. Ed. Universitaria, Craiova.
3. Costache Marcel, T. Roman, 2001 - Ghid pentru recunoasterea si combaterea bolilor si daunatorilor la plantele floricole si ornamentale. Ed. Gea.
4. Mandă Manuela, 2015 – Floricultură generala. Note de curs.
5. Nicu Carmen, Anton D., 2004 - Floricultură generală. Îndrumător de lucrări practice. Ed. Reprograph.
6. Șelaru Elena, 2007 - Cultura florilor de grădină. Ed. Ceres.
7. Toma Florin, 2009 – Floricultura generala. Ed. INVEL Multimedia.

ENERGY BASIS AND MACHINES FOR GREEN AREAS

CODE D29PEL322

CREDITS: 5

COURSE HOLDER: PhD. Professor Ion SĂRĂCIN

YEAR/SEMESTER: 2nd Year / 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours course, 1 hour practical course

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Knowledge of energy forms used in landscape, of the possibilities to obtain and transform them into mechanical energy. The understanding of objectives and of the importance of mechanization in landscape. The interpretation of phenomena taken place during the

transformation of different types of energy into mechanical energy and versus. The advantages and disadvantages of their use. The use of some machines, stands, graphics, the reading and interpretation of data and the applying of their results in order to obtain some exploiting performances for agricultural machines.

THEMES: Types of energy used in agriculture. Obtaining mechanical energy. Materials used in the construction of B.E. Driving mechanism. The real cycle of transforming thermal (caloric) energy into mechanical energy. Driving mechanism and distribution mechanism. Role. Construction. Functioning. The circular diagram of gas distribution. Supplying of thermal engines. Fuel-air mixture. Supplying installation of spark ignition engines. Construction. Functioning. Supplying installation of auto-spark ignition engines. Construction. Functioning. Construction and functioning of injection pumps and of injectors. Lubrication plant, cooling plant. Burning plant. Construction and running. Transmissions used in B.E. Clutches, banjoes, differentials. Working equipment used in the construction of B.E.P.A. Haulage feature. Course synthesis.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Exam/collocutional (final assessment) answers 40%, final answers for workshops 5%, periodical assessment through tests 20%, continuous assessment throughout semester 10%, activities such as homework/ essays/ papers/ translations/ projects etc. 15%

ASSESSMENT TYPE: assessment

BIBLIOGRAPHY:

1. Seracin, E. – Acționări electrice. Timișoara. Litografia Inst. Politehnic. 1980.
2. Sărăcin, I. – Motoare și tractoare. Craiova. Reprografia Universității din Craiova. 1997
3. Sărăcin I. Baza energetică pentru agricultură. Craiova, Ed. Universitaria, 2000.
4. Sărăcin, I. – Baza energetică pentru agricultură. Motoare. Craiova. Editura Europa. 1999
5. Stratulat, M. Și Copae, I. Alimentarea motoarelor cu aprindere prin scânteie. Vol. I și II. Editura Tehnică. București. 1992
6. Toma D. – Tractoare și mașini agricole. Ed. Didactică și Pedagogică. București. 1981

PHYSICAL EDUCATION III

CODE: D29PEL430

CREDITS: 1

COURSE HOLDER: Senior Lecturer, PhD, Daniel CIOCĂNESCU

YEAR/SEMESTER: 2nd year/ 1st semester

NUMBER OF HOURS PER WEEK: 1 hour practical course

NUMBER OF WEEKS: 14

COURSE TYPE: main subject

COURSE OBJECTIVES: Discipline aims at forming the theoretical, practical and methodical skills for individual or group practice for a healthy lifestyle; Awareness of students about the role and importance of practicing physical exercise.

THEMES: Athletics: Long jump technique; Utilitarian-applicative skills; Exercises for the development of general strength; Exercises for speed development; Exercises for the development of coordination capacity; Sports games: handball, table tennis; Bilateral games under similar competitions conditions.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Assessment through practical tests 80%, continuous assessment throughout semester 20%

ASSESSMENT TYPE: A/R

BIBLIOGRAPHY:

1. Barbu D., (2010), Fotbal. Curs de bază pentru studenți. Craiova, Edit. Universitaria
2. Dragomir, M., Albină, A., (2006), Atletism în școală, Ed. Universitaria, Craiova
3. Dragnea A. C-tin. și colab, (2006) - Educație fizică și sport - teorie și didactică. Ed. FEST, București.
4. Ortanescu Dorina, (2008), Gimnastica – componentă a educației fizice școlare, Ed. Universitaria, Craiova
5. Orțanescu Dorina, 2008, Gimnastica- componentă a educației fizice școlare, Ed. Universitaria Craiova
6. Rață G., Ghe. Rață (2008) – Educația fizică și metodică predării ei – Editura PIM, Iași.

7. Ungureanu, A. (2009) - Metodica educației fizice și sportului - Editura Universitaria, Craiova.
8. Țifrea, C., (2002) - Teoria și metodică atletismului - Editura Doreco, București.

2ND SEMESTER

ORNAMENTAL ARBORICULTURE II

CODE: D29PEL423

CREDITS: 5

COURSE HOLDER: PhD Engineer –Senior Lecturer Manuela MANDĂ

YEAR/SEMESTER: 2nd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: The present subject is based on the study of ornamental wood plants (trees, bushes, sub-bushes) which are mainly analyzed from the systematic, morphologic, areologic and ecological point of view also focusing on their decorating features.

THEMES: The presentation of morphologic and landscape characters, ecology and ways of using ornamental wood species in green areas. Species of resinous trees and bushes. Species of decorating deciduous trees through leaves and habitus. Species of decorating deciduous trees through flowers. Species of ornamental bushes and sub-bushes.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70% of exam answers; 30 % of the final check to workshops.

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Iliescu Ana-Felicia, 2002 - Cultura arborilor și arbuștilor ornamentali, Edit. Ceres.
2. Iliescu Ana Felicia, 2003 - Arboricultura Ornamentala, Editura Ceres, Bucuresti.
3. Vișoiu Dagmar, 2004, Speciile lemnoase ornamentale din România. Editura Eurobit, Timișoara.
4. Zaharia D., Dumitraș Adelina, Zaharia A., 2008, Specii lemnoase ornamentale, Ed. Todesco.

GENERAL ENTOMOLOGY

CODE: D29PEL424

CREDITS: 4

COURSE HOLDER: Professor PhD Ion MITREA

YEAR/SEMESTER: 2nd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Knowledge and thoroughness of some aspects concerning the systematic, morphology, anatomy, biology, ecology, attack ways, hosts, control and recognition of pests of floral and ornamental plants.

THEMES: Introductory notions, External morphology of insects, Anatomy and physiology of insects, Biology of insects, Ecology of insects, Systematic of insects, General features of acaroids, crustaceans, nematodes, mollusks and vermin vertebrata, Prevention methods to control animal vermin of horticultural plants.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 70 %, practical abilities throughout semester 10%, final answers to workshop tests 20 %

ASSESSMENT TYPE: exam

BIBLIOGRAPHY

1. Ghizdavu I. și colab., Entomologie agricolă, E.D.P. București, 1997.
2. Mitrea, Entomologie agricolă, Editura Universitaria Craiova, 2005.
3. Mitrea I., C. Stan, O. Țucă, Entomologie vol. 1, Editura Reprograph Craiova, 2010.

4. Rosca I. si colab., Combaterea integrata a bolilor buruienilor si dăunătorilor culturilor agricole. Edit. Did. si Pedag. R.A. București, 2000.

5. Rosca I., I. Oltean, I. Mitrea, și colab. Tratat de Entomologie Generala si Speciala, Editura Alpha MDN Buzău, 2011.

GENERAL PHYTOPATHOLOGY

CODE: D29PEL425

CREDITS: 4

COURSE HOLDER: Professor PhD Rodi MITREA

YEAR/SEMESTER: 2nd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Learning and accumulating knowledge on some aspects of biological characteristics of the main types of pathogens, the role of interaction parasite- plant, host-environment in the pathogenesis process, mechanisms of plant resistance to diseases and protection means for plants in the context of integrated control.

TOPICS: General notions about diseases (disease classification, interface of plant host –parasite and successive phases of disease), Changes in the plants during the pathogenesis process (biochemical, physiological and anatomical- morphological). Parasitism from its origins to the present and its consequences; Parasitic traits of pathogens, Pathogen agents epidemiology, conservation and transmission of infectious inoculum, Plant resistance to diseases (before the infection, after the infection). General characteristics of phytopathogenic viruses, mycoplasmas and phytopathogenic bacteria, of phytopathogenic fungi, General prevention technologies and integrated control of horticultural plant diseases, Protection measures of the agro-ecosystem and the prevention of poisoning in phyto-sanitary works.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: answers at the exam 70 %, final answers at practical laboratory works 30 %

ASSESSMENT FORM: exam

BIBLIOGRAPHY

1. Eliade, Eugenia, Fitopatologie, Ed. II, Tipografia Universității din București, 1990.
2. Mitrea, Rodi, Fitopatologie, Ed. Universitaria, Craiova, 2004.
3. Mitrea, Rodi, Paraziți vegetali, Ed. Universitaria, Craiova, 2005.
4. Mitrea, Rodi, Boli cheie ale principalelor specii horticoale, Ed. Universitaria, Craiova, 2006.
5. Tănase, C., Șesan, Tatiana, Eugenia, Concepte actuale în taxonomia ciupercilor, Edit. Univ. "A. I. Cuza", Iași, 2006.

VEGETABLE ORNAMENTS

CODE: D29PEL426

CREDITS: 4

COURSE COORDINATOR: PhD. Associate Professor Maria DINU

YEAR/SEMESTER: 2nd year/ 2nd semester

HOURS PER WEEK: Course – 2 hours, Practical work – 2 hours

NUMBER OF WEEKS: 14

TYPE OF COURSE: domain

COURSE OBJECTIVES: Knowledge of crop species and cultivation of ornamental vegetables to develop and use sustainable horticultural production technologies. Determination of the cultivation areas of the ornamental vegetable species and of the production directions, prerequisites for the development of a quality vegetable growing, in conditions of economic efficiency

TOPICS: Knowledge and deepening of botanical, biological and ecological particularities of vegetable species in relation to cultivation technologies. Acquiring organizational and decision-making capacity in designing, arranging and maintaining a "edible landscaping".

TEACHING LANGUAGE : Romanian

KNOWLEDGE ASSESSMENT: answers to exam 75%, Colloquium for submitting the project

verification 25%

ASSESSMENT FORM: exam

REFERENCES:

1. Maria Dinu, 2015-2016. Note de curs.
2. Maria Dinu, 2008. Legumicultură generală. Elemente practice. Editura Scrisul Românesc, Craiova.
3. Creasy Rosalind, 2010. Edible Landscaping, Sierra Club Books.
4. Brookes J., 2011. Grădina mea, Editura Teora, Bucuresti.
5. Tracey D., 2012. Grădăritul în zonele urbane, Editura MAST, Bucuresti.
6. Peter MeHoy, 2008. Amenajarea grădinii. Ghidul complet al amenajării și plantării unei grădini frumoase. Editura Aquila, Oradea.

FLOWER AND LAWN PLANTS

CODE: D29PEL428

CREDITS: 4

COURSE COORDINATOR: Associate Professor, PhD, Carmen NICU

YEAR / SEMESTER: 2nd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hour of course, 2 hours of practical works

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Knowledge of the main flower and turf species, their biological features, ecological requirements and cultivation technologies. Knowledge the ways of flower species use in urban green spaces, in parks and gardens, in different floral compositions and in interior design.

TOPICS: Annual, biennial, perennial hemicryptophyte and geophyte flower species used in green spaces. Flower species for mosaiculture. Flower species for alpine gardens, rockeries. Aquatic species used in landscaping. Species of ferns used in landscaping. Ornamental grasses used in landscaping. Grass species for lawn. Species decorative through flowers, leaves, fruits, grown in pots for decoration of interior spaces, terraces and balconies (biological, morphological and decorative features, ecological requirements, cultivation technology, use).

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: Exam answers 60%, final answers to practical works 40%.

ASSESSMENT FORM: exam

REFERENCES:

1. Anton Doina, Nicu Carmen, 2005. Floricultură specială. Culturi floricole în câmp. Vol. I. Editura Universitaria, Craiova.
2. Anton Doina, Nicu Carmen, Mandă Manuela, 2009. Floricultură specială. Culturi floricole în spații protejate. Vol. II. Editura Universitaria, Craiova.
3. Șelaru Elena, 2002. Culturi pentru flori tăiate. Editura Ceres, București.
4. Toma F., 2009. Floricultură și Artă florală. Vol. 4. Specii utilizate pentru decorul parcurilor și grădinilor. Editura INVEL-Multimedia, București.
5. Toma F., 2009. Floricultură și Artă florală. Vol. 3. Specii utilizate ca plante în ghivece pentru decorul interioarelor. Editura INVEL-Multimedia, București.

PRACTICE

CODE: D29PEL429

CREDITS: 5

COURSE COORDINATOR: Senior Lecturer, PhD, Marius GRUIA

YEAR / SEMESTER: 2nd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 30

NUMBER OF WEEKS: 3

COURSE TYPE: domain

COURSE OBJECTIVES: The purpose of the practical training is to form aptitudes and skills appropriate to the specific activities of horticulture and landscape. Acquiring the practical skills of the knowledge obtained at the specialized courses, regarding the production of planting material for ornamental species, current works for the establishment of floricultural and vegetable crops in the field, identification of the main pests and pathogens of the ornamental plants.

TOPICS: Identification of tree species using visual features. Works performed in dendrological nursery. Preparation of the land for the establishment floral crops in the field. Preparation of different type of culture substrates. The seedlings production of annual flower plants. Establishment of floral crops in open field. Vegetable seedling production. Establishment of vegetable crops by planting and sowing. Identification of the main pests of ornamental plants grown in protected spaces. Identification of the main pests of ornamental shrub species. Identification of phytoparasites attack specific to flower plants grown in the field and greenhouses. Monitoring of pathogens attack on ornamental trees and shrubs.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: Answers to the final evaluation 100%

ASSESSMENT FORM: verification

REFERENCES:

1. Anton Doina, Nicu Carmen, 2005. Floricultură specială. Culturi floricole în câmp. Editura Universitaria, Craiova.
2. Anton Doina, Nicu Carmen, Mandă Manuela, 2009. Floricultură specială. Culturi floricole în spații protejate. Editura Universitaria, Craiova.
3. Dinu Maria, 2008. Legumicultură generală. Elemente practice. Editura Scrisul Românesc, Craiova.
4. Mitrea Rodi, 2004. Fitopatologie. Ed. Universitaria, Craiova.
5. Mitrea I., 2005. Entomologie agricolă, Editura Universitaria, Craiova.

PHYSICAL EDUCATION IV

CODE: D29 PEL430

CREDITS: 1

COURSE HOLDER: Senior Lecturer, PhD, Daniel CIOCĂNESCU

YEAR/SEMESTER: 2nd year/ 1st semester

NUMBER OF HOURS PER WEEK: 1 hour practical course

NUMBER OF WEEKS: 14

COURSE TYPE: main subject

COURSE OBJECTIVES: Discipline aims at forming the theoretical, practical and methodical skills for individual or group practice for a healthy lifestyle; Awareness of students about the role and importance of practicing physical exercise.

THEMES: Fitness - optimization of physical condition; utilitarian-applicative skills; Exercises for the development of general strength; Exercises for speed development; Exercises for the development of coordination capacity; Sports games: handball, table tennis; Bilateral games under similar competition conditions.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: Assessment through practical tests 80%, continuous assessment throughout semester 20%

ASSESSMENT TYPE: A/R

BIBLIOGRAPHY:

1. Barbu D., (2010), Fotbal. Curs de bază pentru studenți. Craiova, Edit. Universitaria
2. Dragomir, M., Albină, A., (2006), Atletism în școală, Ed. Universitaria, Craiova
3. Dragnea A. C-tin. și colab, (2006) - Educație fizică și sport - teorie și didactică. Ed. FEST, București.
4. Ortanescu Dorina, (2008), Gimnastica – componentă a educației fizice școlare, Ed.Universitaria, Craiova
5. Orțanescu Dorina, 2008, Gimnastica- componentă a educației fizice școlare, Ed. Universitaria Craiova
6. Rață G., Ghe. Rață (2008) – Educația fizică și metodica predării ei – Editura PIM, Iași.
7. Ungureanu, A. (2009) - Metodica educației fizice și sportului - Editura Universitaria, Craiova.
8. Țifrea, C., (2002) - Teoria și metodica atletismului - Editura Doreco, București.

THE THIRD YEAR OF ACADEMIC STUDY

THE FIRST SEMESTER

ORNAMENTAL FRUIT GROWING TREES

CODE: D29PEL531

CREDITS: 5

COURSE COORDINATOR: Professor Dr. Sina COSMULESCU

YEAR / SEMESTER: 3rd Year/ 1st Semester

HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Explanation and interpretation of the use of the various technological links and of the interrelations between the horticultural production systems and the environment. Identification and use of the methods, techniques and planning procedures of the landscape decoration. Elaboration of solutions to projects, decoration and durable exploitation of the landscape.

TOPICS: Introductory notions. Classification and characterization of fruit growing species. Biological cycle of fruit growing species. Ecology of fruit growing species. Set up new fruit growing plantation. Guiding the growth and fruit yield by cutting. Preservation of fruit growing plantations. Species and types of fruit growing used in decorations.

TEACHING LANGUAGE: Romanian

ASSESSMENT FORM: exam (60% of exam answers; 40% of workshop activity)

REFERENCES:

1. Cosmulescu Sina. 2014. Pomicultura ornamentală. Editura Sitech
2. Cosmulescu Sina, Adrian Baciu. 2003. Pomologie – descriere de sortiment. Ed. Universitaria
3. Hoza D., 2003. Sfaturi practice pentru cultura pomilor. Editura Ceres
4. Mihaescu G., 2007. Pomicultura de la A la Z. Editura ASAB Bucuresti

SPECIAL PHYTOPATHOLOGY

CODE: D29PEL532

CREDITS: 5

COURSE HOLDER: PhD Professor Rodi MITREA

YEAR/SEMESTER: 3rd Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Knowledge of the diseases that are of economic importance, of taxonomy, ecology, epidemiology, prevention and of the therapy regarding the key pathogenic agents to the main flower and ornamental plants.

THEMES: Virosis, Mycoplasmosis and bacteria to flower plants. Diseases produced by mushrooms from the Oomycete and Ascomycete classes to some flower plants. Diseases produced by mushrooms from the Uredinomyces and Ustilaginomycetes classes to some flower plants. Diseases produced by anamorphic mushrooms to some flower plants. Bacterial virosis and the main mycosis of ornamental bushes. Vine diseases. Virosis, Bacteria and mycosis to some ornamental trees.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70% of exam answers, 30% of answers to workshops

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Costache M., Roman T., 2001 - Ghid pentru recunoașterea și combaterea bolilor și dăunătorilor la plante floricole și ornamentale. Ed. Gee, București.
2. Manoliu Al., Mititiuc M., Petcu I., Georgescu T., 1993 - Bolile și dăunătorii plantelor ornamentale. Ed. Ceres, București.
3. Marinescu Gh., Costache M., Stoenescu A., 1988 – Bolile plantelor floricole. Ed. Ceres, București.
4. Mitrea, Rodi, Fitopatologie, Ed. Universitaria, Craiova, 2004
5. Pop I.V., 2009 – Tratat de Virologie vegetală, vol.IV (Virusurile plantelor ornamentale și spontane). Ed. Printec, București

6. Săvulescu Olga, Barbu Valeria, Eliade Eugenia, Nagler M., Tudosescu - Bănescu Veronica, 1969 – Bolile plantelor ornamentale din România. Ed. Academiei RSR București

SPECIAL ENTOMOLOGY

CODE: D29PEL533

CREDITS: 5

COURSE HOLDER: PhD Senior lecturer Ovidiu Andrei ȚUCĂ

YEAR/SEMESTER: 3rd Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Recognition of the main animal pests of flower and ornamental plants and of the useful fauna. Knowledge of the main attack ways of animal pests on flower and ornamental plants. Knowledge and application of the complex of methods regarding the integrated control of animal pests to flower and ornamental plants.

THEMES: Presentation, attack ways and measures for the control of polyphagous pests to flower and ornamental plants. Presentation, attack ways and measures for the control of pests to annual and biennial flower and ornamental plants. Presentation, attack ways and measures for the control of pests to flower and ornamental plants that present bulbs, tubers and rhizome.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 80 % of answers to exams, 20 % of final answers to practical courses

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Costache M., Roman T., 2001 – Ghid pentru recunoașterea și combaterea bolilor și dăunătorilor la plante floricole și ornamentale. Ed. Gee, București.
2. Mitrea I., Entomologie agricolă, Editura Universitaria Craiova, 2005.
3. Mitrea I., C. Stan, O. Țucă, Entomologie vol. 1, Editura Reprograph Craiova, 2008.
4. Rosca I. și colab., Combaterea integrată a bolilor buruienilor și daunătorilor culturilor agricole. Edit. Did. și pedag. R.A. București 2000.
5. Rosca I., C. Stan și colab. Protecția biodiversității în principalele agroecosisteme, Edit. TOTAL Publishing, București, 2008.
6. Rosca I., I. Oltean, I. Mitrea, M. Talmaciu, C. Stan și colab. Tratat de Entomologie Generală și specială. Ed. Alpha MDN, Buzău, 2011.
7. Costache M., Roman T., A Guide for the Recognition and Control of Diseases and Pests to flower and ornamental plants. GEEA Publishing, Bucharest 2001.

LANDSCAPE DESIGN AND URBAN PLANNING I

CODE: D29PEL534

CREDITS: 5

COURSE HOLDER: Associate Professor Eng. PhD Dorina TARBUJARU

YEAR/SEMESTER: 3rd Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours project

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: The course has as its purpose the presentation to students of the main thinking trends and approaches in the territorial and urban planning throughout time and nowadays. There will be studied various perspectives and intervention modalities upon territories, the organization of urban spaces, the way space evolves together with the society that produces it. The second chapter is represented by the knowledge of urbanism rules and the design of present spaces, by the current laws that frame the planning activity in Romania, as well as by a comparison of these laws to the international legislation under the context of forming one unique European territory.

THEMES: General notions, concepts and theoretical models. The historical evolution of theoretical thinking and of practical approaches in space planning. Legislation for landscape and urban planning. Case studies and comparative analysis of planning mechanisms.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 20%; results of workshop tests 40 %, paper 40%

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Delius Peter and col., Arhitectura-O istorie vizuală, Ed. Litera International, București, 2009
2. Curinschi Vorona Gheorghe, Istoria universală a arhitecturii, Ed. Tehnică, București, 1976
3. Gheorghiu T. O., Așezări Umane, Ed. Inst.Polith. Timișoara, 1996
4. Grigorovschi M., Poroch Cr. R., Ghidul tehnicianului responsabil cu urbanismul si amenajarea teritoriului, Editura ALFA, Iasi, 2005
5. Kluckert Ehrenfried, European Garden Design from classical Antiquity to present day, Ed Koneman, 2005
6. Krier Rob, Town Spaces, Ed.Birkhauser, Basel, 2006
7. Krier Rob, Urban Space, Ed.Academy, Basel, 2006
8. Ragon Michel, Histoire de l'architecture et l'urbanisme moderne, v.I-II, Casterman- Belgia, 1972
9. Simonds John Ormsbee, Arhitectura peisajului, Ed.Tehnică, București, 1967
10. Sitte Camillo, Arta construirii orașelor, Ed. Tehnică, București, 1992.

EMBANKMENTS AND ROADS

CODE: D29PEL535

CREDITS: 5

COURSE HOLDER: PhD Engineer Senior Lecturer. Mihaela BĂLAN

YEAR/SEMESTER: 3rd Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hour of course, 1 hour of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Students' initiation in the embankments and roads of populated centers. Knowledge of legislation regarding communication ways. Knowledge of infrastructure. Knowledge of superstructure. Knowledge of specific communication ways.

THEMES: Introductory notions. Geometrical elements of communication ways. Infrastructure elements. Superstructure elements. Specific ways of communication.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70% of exam answers; 30% of the final check from workshops

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Berar Traian, Tudor Dan, Mihai Dorel - 2005, Elemente de construcții civile, industriale, agricole și forestiere, Editura Orizonturi Universitare;
2. Bob C., 1982 - Materiale de construcții, EDP, București;
3. Ionașcu G., 1988 - Exploatare, transporturi și construcții forestiere, Editura Ceres, București;
4. Belc F., 1999 - Căi de comunicație – elemente de proiectare, Editura Orizonturi Universitare;
5. Belc F., Lucaci G., 2001 - Căi de comunicație – elemente de construcție, Editura Orizonturi Universitare.
6. Lulea C., C.V. Popescu și colab., - 2009, Îmbunătățiri funciare. Ed. a IV-a, Ed. Universitaria, Craiova;

EXPERIMENTAL DESIGN

CODE: D29PEL537

CREDITS: 5

COURSE HOLDER: PhD Professor Ion BOTU

YEAR/SEMESTER: 3rd Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 1 hour of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: speciality

COURSE OBJECTIVES: Knowledge of the role, importance and particularities of biostatistics and research in ecology. Research objectives, the design and organization of research in ecology.

Fundamental elements of trials, methods and techniques used in ecology research. Statistical parameters and methods of calculus and analysis.

THEMES: Role, importance and particularities of biostatistics, biometry and ecology research
Research objectives in ecology. Design and organization of research in ecology Extraction of samples for analysis. Measurement errors in environmental field experiences. Design of different types of trials. Methods of setting up monofactorial and polyfactorial trials (randomized blocks, Latin square, Latin rectangle, and balanced square lattice).

Parameters and estimators in statistics (variance, standard deviation, coefficient of variation, correlation, regression). Statistical hypothesis testing, F, t and Duncan tests. Analysis of variance Interpretation and exploitation of results in experiments in ecology.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 75% of the final grade represent the response to the written theoretical questions and 25% of the final grade the answers to laboratory tests.

VERIFICATION FORM: verification

REFERENCES:

1. Botu I., Botu M. 1994. Metode și tehnici de cercetare în pomicultură. Ed. Conphys. Rm. Vâlcea.
2. Botu I., Botu M. 2003. Biostatistică și design experimental în agricultură și biologie. Ed. Conphys. Rm.Vâlcea.
3. Botu I., Botu M. 2010. Tehnică experimentală în horticultură și ecologie (Elemente de bază). Ed. Conphys, Rm.Vâlcea.
4. Ceapoiu N. 1968. Metode statistice în experiențele agricole și biologice. Edit. Agrosilvică. București.
5. Sokal, R.R., Rohlf, F.J. 1994. Biometry: The Principles and Practices of Statistics in Biological Research. 3rd Edition. W. H. Freeman.
6. Zar, J.H, 1998. Biostatistical Analysis. 4th Edition. Prentice Hall.

THE SECOND SEMESTER

LANDSCAPE DESIGN AND URBAN PLANNING II

CODE D29PEL638

CREDITS: 4

COURSE HOLDER: Associate Professor, Eng., PhD, Dorina TARBUJARU

YEAR/SEMESTER: 3rd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours course, 2 hours practical course

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Theoretical and practical training of students in the specific field by: general knowledge of basic elements of urban science; analysis of cities and territories with their morphological elements; developing the capacity to read and represent urban and territorial information.

THEMES: 1. Urbanism science. Features and purpose. Main objectives. 2. Urban design. 3. Landscape design - Features. Purpose and objectives of the built environment. 4. Landscaping and urbanization projects - definitions, purpose, framework content. 5. Projects - Urban documentation. 6. Projects - landscaping documentation. 7. Legislation for landscape and urban planning. 8. Conservation and protection of the environment. Protection of natural and built monuments. 9. Landscaping - The Relationship between Urbanism and Landscape Design. 10. Sustainable urban landscape. Case studies and comparative analysis of planning mechanisms.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: exam answers 20%; results of workshop tests 40 %, paper 40%

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Choay, Francoise – Urbanism, Utopia and Reality – ed. Paideia, Buc, 2002
2. Curinschi Vorona Gheorghe, Istoria universală a arhitecturii, Ed. Tehnică, București, 1976
3. Delius Peter and col., Arhitectura-O istorie vizuală, Ed. Litera International, București, 2009
4. Gheorghiu T. O., Așezări Umane, Ed. Inst.Polith. Timișoara, 1996

5. Gheorghiu T. O., Așezări Umane – Repere teoretice și istorie, vol.I, Ed. ArtPres Timișoara, 2009
6. Grigorovschi M., Poroș Cr. R., Ghidul tehnicianului responsabil cu urbanismul și amenajarea teritoriului, Editura ALFA, Iași, 2005
7. Kluckert E., European Garden Design from classical Antiquity to present day, Ed Koneman, 2005
8. Krier Rob, Town Spaces, Ed.Birkhauser, Basel, 2006
9. Krier Rob, Urban Space, Ed.Academy, Basel, 2006
10. Laurian Radu, Urbanismul, Ed. Tehnică, București, 1968

LAND MELIORATION

CODE: D29PEL639

CREDITS: 4

COURSE HOLDER: PhD Associate Professor Cătălin POPESCU

YEAR/SEMESTER: 3rd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 1 hour of practical course, 1 hour of project

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Prevention and control of soil erosion to slope land (arable land, vine, fruit trees). Prevention and control of wind erosion. Humidity excess removal both to the surface and to the interior of the soil. Works of projection, construction, exploitation and maintenance of drainage basins.

THEMES: Hydraulic notions. Notions of hydrology, hydrography, hydrometrics, hydrogeology. Soil erosion. Prevention and control of soil erosion. Control of deep erosion. Prevention and control of wind erosion. Landslip. Agricultural land draining. Irrigation.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70% of exam answers; 30 % of the final check to workshops.

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Bălan Mihaela, 2014 – Îndrumător de lucrări practice și de elaborare a proiectului de combatere a eroziunii solului – Editura Sitech, Craiova.
2. Lulea C., Popescu C.V. și colab., 2009 – Îmbunătățiri funciare. Ed. IV. Editura Universitaria. Craiova.
3. Lulea C., 2000 – Ghid pentru proiectarea și executarea lucrărilor de desecări, îndiguiri, acumulări de apă și irigații. Editura Universitaria. Craiova.
4. Savu. P, Bucur D., 2002 – Organizarea și amenajarea teritoriului agricol cu lucrări de îmbunătățiri funciare. Editura „Ion Ionescu de la Brad” Iași.

THE MANAGEMENT OF LANDSCAPE DECORATION

CODE: D29PEL640

CREDITS: 4

COURSE HOLDER: PhD. Senior Lecturer Ion STAN

YEAR/SEMESTER: 3rd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 1 hour of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: An elaborated study on the organization of landscape activities in Romania, on the exploitation of landscape decoration and on the management of projected landscape. The setting of the technologies necessary in the maintenance of plantations, installations and the constructions from the green areas. The administration of landscape decoration.

THEMES: The administrative organization of landscape activities in Romania. The exploitation of landscape decoration. The management of projected landscape. The characteristics of maintaining green areas. The maintenance of inactive constructions, installations, objectives and decorations. Micro-landscape corrections. The erosion and setting of slopes. The maintenance of plantations, grassing areas, decorating bushes, quickset hedges. Possibilities of creating flower decoration, plantation programming, combination of decorating plants.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70% of exam answers; 30% of the final check to workshops.

ASSESSMENT TYPE: written test

BIBLIOGRAPHY:

1. Iliescu Ana-Felicia, 2005 – Cultura arborilor și arbuștilor ornamentali. Edit. Ceres, București
2. Kenneth Clark, 1969 – Arta Peisajului. Edit. Meridiane, București
3. Negulescu Emil G., Ioan Damian, 1966 – Dendrologia, cultura și protecția pădurilor, vol. II. Edit. Didactică și Pedagogică, București
4. Negruțiu Filofteia, 1980 – Spații verzi. Edit. Didactică și Pedagogică, București
5. Petrescu Florin, 1983 – Lucrări de întreținere în parcuri și grădini, Ed. Ceres, București
6. Sonea V., L. Palade, Ana Felicia Iliescu, 1979 – Arboricultură ornamentală și arhitectură peisageră. Edit. Didactică și Pedagogică, București

URBANISTIC NETWORKS

CODE: D29PEL641

CREDITS: 4

COURSE HOLDER: PhD Professor Dragomir BRUMAR

YEAR/SEMESTER: 3rd year/ 2nd semeste

NUMBER OF HOURS PER WEEK: 2 hours of course, 1 hour of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized subject

COURSE OBJECTIVES: Students' initiation in the urbanistic networks of populated centers. Knowledge of the laws of hydrostatics, hydrodynamics and hydrokinematics. Knowledge of the water quality and quantity necessary in inhabited places. Knowledge of water supplying works and water distribution. Knowledge of sewerage works, sewerage schemes and systems.

THEMES: Introductory notions. Hydrostatics. Hydrokinematics. Hydrodynamics. Water flowing through porous areas. The quantity and quality of the water needed in inhabited places. Water collection. Water transport. Constructions for water storage. Water distribution. Improvement of water quality. Sewerage works. Sewerage schemes and systems. Sewerage networks. The cleaning of used water .

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70% of exam answers; 30 % of the final check to workshops

ASSESSMENT TYPE: written test

BIBLIOGRAPHY:

1. Dimache Al., Mănescu M., 2006 – Rețele edilitare. Editura MatrixRom. București.
2. Dobre Anca Stela., 2006 – Construcții edilitare. Editura Conspress. București.
3. Florescu I., 2007 - Mecanica fluidelor. Editura Alma Mater. Iași.
4. Vintilă Șt., 2010 – Manualul de instalații sanitare. Editura Artecno. București.

LANDSCAPE ARCHITECTURE

CODE: D29PEL642

CREDITS: 5

COURSE HOLDER: PhD. Senior Lecturer Marius Catalin GRUIA

YEAR/SEMESTER: 3rd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 1 hour of practical course, 1 hour of project

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Knowledge of the specialized terminology and the principles regarding the decoration of green areas. Knowledge of the main types of green areas and their features. Acquire the fundamental notions regarding the theory, art and technique of landscape. The general presentation of the notions regarding the projection, decoration and maintenance of green areas.

THEMES: The importance and functions of green spaces. Evolution and styles in landscape architecture. Classification of green spaces. Composition principles used in Landscape Architecture.

Structural elements of green spaces. General concepts for designing green spaces. General notions about green spaces arrangement and maintenance.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70 % of exam answers, 30% of final answers to workshops

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Iliescu Ana-Felicia, 2002 – Arhitectura Peisageră, Edit.Ceres 2002.
2. Iliescu Ana Felicia 2003, Arboricultura Ornamentală, Editura Ceres, Bucuresti
3. Peter Mc Hoy, 2008 - Amenajarea grădinii, Ghid complet al amenajării unei grădini, Edit Aquila.
4. The Royal Horticultural Society, 2008 - Enciclopedia of gardening, Editor-Christopher Brickellx.

ORNAMENTAL VITICULTURE

CODE: D29PEL643

CREDITS: 5

COURSE HOLDER: Ph.D Professor Nicolae GIUGEA

YEAR/SEMESTER: 3rd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized subject

COURSE OBJECTIVES: Knowledge of the main morphological, biological, ecological and technological features of vine in the sense of familiarizing with the possibilities of ornamental culture

THEMES: The biological bases of ornamental viticulture. The technological bases of ornamental viticulture. The production of vine seed material. The main types of vines and their agrbiological and technological features.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 50 % of exam answers, 50 % of final answers to workshops

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Giugea N., Mărăcineanu L. - Viticultură și oenologie, Ed. Universitaria Craiova, 2005;
2. Olteanu I. - *Viticultura*. Ed Universitaria Craiova, 2000;
3. Olteanu I., Cichi D., Costea D., Mărăcineanu L. - *Viticultură specială*. Ed Universitaria Craiova, 2002.

PRACTICE

CODE: D29PEL644

CREDITS: 4

COURSE COORDINATOR: Professor, PhD, Ion MITREA

YEAR / SEMESTER: 3rd year/ 2nd semester

NUMBER OF HOURS PER WEEK: 30

NUMBER OF WEEKS: 3

COURSE TYPE: specialized

COURSE OBJECTIVES: The purpose of the practical training is to form aptitudes and skills appropriate to the specific activities of horticulture and landscape. Acquiring the practical skills of the knowledge obtained at the specialized courses, regarding the planting and the specific maintenance works of the flower and woody species in the green spaces, pruning shrubs, fruit trees and grape vines.

TOPICS: Fructification pruning of fruit trees and shrubs. Maintenance works of floral crops in open field. Pruning of roses in the spring time. Formative pruning of ornamental shrubs. Knowledge of the support structures, types of pruning and ways to direct the grape vine for ornamental purposes.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: Answers to the final evaluation 100%

ASSESSMENT FORM: verification

REFERENCES:

1. Anton Doina, Nicu Carmen, 2005. Floricultură specială. Culturi floricole în câmp. Editura Universitaria, Craiova.

2. Cosmulescu Sina, 2014. Pomicultura ornamentală. Editura Sitech, Craiova.
3. Iliescu Ana-Felicia, 2003. Arhitectură peisageră. Editura Ceres, București.
4. Iliescu Ana-Felicia, 2008. Cultura arborilor și arbuștilor ornamentali. Editura Ceres, București.

THE FOURTH YEAR OF STUDY

THE FIRST SEMESTER

COMPUTER ASSISTED PROJECTION I

CODE: D29PEL745

CREDITS: 5

COURSE HOLDER: PhD Associate Professor Doina ROȘCA

YEAR/ SEMESTER: 4th Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical works

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Using the AutoCAD Graphics Environment. To create students the necessary skills to generate two-dimensional (three-dimensional) models for the correct transposition of space objects on the drawing

TOPICS: Basic Elements. Presentation of AutoCAD interface. Configuration and use of drawing tools. Coordinate systems; Specifying distances by coordinates; Interpreting cursor modes and explaining prompts. Setting up a desktop; Use AutoCAD modes as drawing tools. Selection of objects; Editing using control points. Draw Drawing Drawing Drawing Drawing Drawing Commands. Modify graphical menu - editing commands. Hatching; Adding text; Listing the drawings. Organization of objects with blocks and groups. Managing Layers and Blocks. Modeling and creating 3D images

TEACHING LANGUAGE : Romanian

KNOWLEDGE ASSESSMENT: answers to exam 70%, final answers to Laboratory works 30%

ASSESSMENT TYPE: exam

REFERENCES:

1. Roșca Adrian Sorin, 2001, Bazele proiectării asistate de calculator, Note de curs, Reprografia Universității.
2. Roșca Adrian Sorin, 2005, Aplicații în Mechanical Desktop, Editura UNIVERSITARIA, Craiova.
3. Ionel Simion, 2007, AutoCAD pentru ingineri, Editura TEORA.
4. George Omura, 2007, AutoCAD 2006, Editura TEORA, Seria EXPERT.
5. David Frey, 2007, AutoCAD 2007, Editura TEORA.
6. *** - software documentation

BIODIVERSITY CONSERVATION

CODE: D29PEL746

CREDITS: 5

COURSE HOLDER: PhD Professor. Mihai BOTU

YEAR/SEMESTER: 4th Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 1 hour of laboratory

NUMBER OF WEEKS: 14

COURSE TYPE: domain

COURSE OBJECTIVES: Knowledge of the role and importance of biodiversity for the present and future of mankind. Getting familiar with biodiversity structural elements and factors of influence. Knowledge of genetic centers of plant diversity. Knowledge of methods and techniques for conservation of plant and animal genetic resources, improvement of the conservation activities and utilization of horticultural plants biodiversity.

TOPICS: Concept, importance and strategies used in protection and conservation of biodiversity. Structural elements and influence factors of biodiversity. Genetic centers of plant diversity.

Management of biodiversity and collection of genetic resources. *In situ* conservation (protected and non-protected areas). *Ex situ* conservation (gene banks, botanical gardens, field conservation - collections). Protection and conservation of animal genetic resources. Plant and animal biodiversity conservation in Romania. Plant genetic resources used in landscaping and breeding.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT 75% of the final grade represent the response to the written theoretical questions and 25% of the final grade the answers to laboratory tests.

ASSESSMENT FORM: Exam

REFERENCES:

1. Botu, I., Botu, M. 2000. *Protecția și conservarea biodiversității*. Ed. Conphys, Rm. Vâlcea.
2. Cristea, M., 2006. *Biodiversitatea*. Ed. Ceres, București.
3. Frankel, O.H., Brown, A.H.D., Burdon, J.J., 1995. *The conservation of plant biodiversity*. Cambridge University Press.
4. Ghidra, V., Botu, M., Sestraș, R., Botu, I., 2004. *Biodiversitate și bioconservare*. Ed. AcademicPres, Cluj-Napoca.

THE PROJECTION OF GREEN AREAS

CODE: D29PEL747

CREDITS: 5

COURSE HOLDER: PhD. Senior Lecturer Marius Catalin GRUIA

YEAR/SEMESTER: 4th Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 1 hour of practical course, 1 hour of project

NUMBER OF WEEKS: 14

COURSE TYPE: specialized subject

COURSE OBJECTIVES: Improving knowledge regarding the landscape projection based on the deep interdisciplinary character. Presentation of the notions of landscape drawing necessary in the elaboration of projects. Setting of the solutions and techniques of projection for the main types of green areas in accordance with the specificity of the theme. The communication of the methods used in the drawing up of projects in accordance with the legislation in the field.

THEMES: Norms and notions regarding the content of the projects. The content of the projects concerning the architecture of green areas landscape and its basic elements. The projection of green spaces of general use. Designing limited access green spaces. Designing green areas with a specialized profile. Designing green spaces with protective functions. Methodologies used in the realization of the previous measurements, evaluations and the elaboration of work estimates.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 50 % of the exam answers, 25% of the final answers to practical courses, 25% of other activities such as: themes, reports, essays, translations, projects, etc

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. John Ormsbee Simonds, 1967 - Arhitectura peisajului, Edit. tehnică, București.
2. Iliescu Ana-Felicia, 2002 - Cultura arborilor și arbuștilor ornamentali, Edit. Ceres.
3. Preda Milea L., Palade L. 1973 - Arhitectura peisageră, Edit. Ceres 1973.
4. Peter McHoy, 1988 - Amenajarea grădinii - Ghidul complet al amenajării unei grădini, Ed. Aquila, Oradea.
5. Liz Dobbs, Sarah Wood, 2002 - Garden Design Tehniques, Edit. Aquila, Oradea.
6. The Royal Horticultural Society, 2008 - Enciclopedia of gardening, The definitive practical Guide, Editor-Christopher Brickellx.

THE PRODUCTION OF DENDROLOGICAL MATERIAL

CODE: D29PEL748

CREDITS: 5

COURSE HOLDER: PhD. Senior Lecturer Marius Catalin GRUIA

YEAR/SEMESTER: 4th Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Knowledge and organization of the technological process in the dendrological seed bedding. The presentation of the methods used to obtain seedlings of various ornamental wood plants. The setting and description of different technologies used to obtain seedlings in accordance with the particular biological features of ornamental wood plants; recommended technique and the goal of using it in the landscape.

THEMES: Generative and vegetative propagation of dendrological species. Technologies used to obtain seedlings and to form the crown of dendrological plants in the dendrological seed bedding (different species and varieties of resinous and leafy trees and bushes, climbing bushes, bushes for hedges). Pull out the seedlings from the seed bedding, their maintenance, packing, transport and plantation in green areas.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70 % of exam answers, 30% of final answers to workshops

ASSESSMENT TYPE: written examination

BIBLIOGRAPHY:

1. Baci A., Godeanu I., 2000 – Producerea materialului săditor pomicol. Editura Universitaria, Craiova.
2. Craiova.
3. Enescu V., Ioniță L., Palada-Nicolau M., 1994 – Înmulțirea vegetativă a arborilor forestieri. Editura CERES, București.
4. Iliescu Ana-Felicia, 2008 – Cultura arborilor și arbuștilor ornamentali. Editura CERES, București.
5. Stănică F., Dumitrașcu M., Davidescu V., Madjar R., Peticilă A., 2002 – Înmulțirea plantelor horticole lemnoase. Editura CERES, București.

ECOLOGICAL MANAGEMENT

CODE: D29PEL749

CREDITS: 5

COURSE HOLDER: PhD Associate Professor. Eleonora Daniela CIUPEANU CĂLUGĂRU

YEAR/SEMESTER: 4th Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 1 hour of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized subject

COURSE OBJECTIVES: to define the concepts of ecological management, durable development, natural capital, socio-economic systems, deterioration of natural capital, ecosystem management, the total economic value of ecological resources, ecological economics; to identify the goal and functions of ecological management and durable development; to discuss the mechanisms and instruments of ecological management; to be able to express the environmental policies and legislation, the institutional framework regarding environmental.

THEMES: The need of ecological thinking; the relation natural environment-economics. Ecosystems. The principles of ecological processes. Ecological factors: classification and action laws. The Environment and its durable development. The content and the significance of the concept: durable development. Strategies of achieving durable development. Techno centrism and ecocentrism in the approach of durable development. Sustained human development – an essential component of life quality. The ecological management of pollution. Pollution ecology. The ecology of atmosphere pollution. The ecology of water pollution. The ecology of soil pollution. The ecology of pollution in other situations. Waste management. Waste classification. Methods of waste recovery and elimination. The responsibility of producers and consumers in waste production. Evaluation and authorization of activities that have an impact on the environment. The system of evaluation and authorization of activities that influence the environment. The audit in the ecological management systems. The National System of Accounts and Environment. The integrated economic-ecological accounting. The environment in the National System of Accounts. Methodologies of environmental accounting. Expenses for the environment. The principles of environmental accounting. The costs of environmental deterioration. The system of ecological management. The specific requirements of a system of ecological management. The advantages of a system of ecological management. The principles of environmental management. Environmental monitoring. The concept of environmental monitoring. The components of the monitoring system. The environmental data necessary in the

monitoring system. Quantitative indicators of natural environment. Environmental policy and legislation. The environmental legislation from the EU and Romania. International and Romanian institutions of environment.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 80 % of answers to exams, 20% of final answers to workshops

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Bran, F. Ecologie generală și protecția mediului, Editura ASE, București, 2000.
2. Bran, F. Problemele de mediu. Posibilități de reglementare, Tribuna economică, 15, 2001
3. Bran, F. Componenta ecologică a deciziilor de dezvoltare economică, București, Editura ASE, 2002.
4. Daniela Ciupeanu, Ilie Murărița, Ovidiu Țucă, Managementul mediului, Editura Universitaria, Craiova, 2008.
5. Georgescu, G. Reforma economică și dezvoltarea durabilă, București, Editura Economică, 1995.
6. Platon, V. Protecția mediului și dezvoltarea economică durabilă, București, Editura Didactică și Pedagogică, 1997
7. Vădineanu, A. Dezvoltarea durabilă, vol.1, Teorie și practică, București, Ed. Universității 1999.

FLORAL COMPOSITIONS

CODE: D29PEL750

CREDITS: 5

COURSE HOLDER: PhD Senior Lecturer Manuela Adriana MANDA

YEAR/SEMESTER: 4th Year/ 1st Semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 14

COURSE TYPE: specialized

COURSE OBJECTIVES: Knowledge of the history of floral art; the materials used in the creation of floral arrangements; the styles, principles and ways of arranging flowers. The choice, association and placing of floral plants in order to use them in different types of floral decorations for interior or exterior design.

THEMES: The art of arranging flowers in different historical epochs. The vegetal material used in floral arrangements. Harvesting, maintenance and processing of fresh or dry vegetal material. Pots, materials, accessories and techniques used in floral art design. Western floral art. – the principles of floral composition and the used styles. Eastern floral art. – basic principles of arrangements. Ikebana. Interior plants, placement criteria, floral compositions of entire plants, container gardens. Ways of placement in exterior design (flower beds, curbstones, flower bands, mosaics, arabesques, etc). The type, the criteria of choice and association of the plants used in different floral compositions. The use of flower plants in the decoration of intermediary spaces- balconies, terraces.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 50% of answers to exam; 20% of involvement in practical activities, 30% of drawing up a project.

ASSESSMENT TYPE: exam

BIBLIOGRAPHY:

1. Anton Doina, 2003 - Arta aranjării florilor. Ed. Reprograph Craiova.
2. Anton Doina, Carmen Nicu, Manuela Manda, 2007 - Floricultura speciala.Vol. II. - Culturi floricole în spații protejate. Editura Universitaria Craiova.
3. Cantor Maria, Erzsebet Buta, 2010, Artă florală, Ed. Todescu, Cluj – Napoca.
4. Selaru Elena, 2004 - Arta Florală. Ed Ceres.
5. Toma Florin, 2009 – Floricultura și Artă florală; vol. V: Artă florală; Ed. Invel Multimedia.

THE SECOND SEMESTER

COMPUTER ASSISTED PROJECTION IN LANDSCAPE II

CODE: D29PEL852

CREDITS: 4

COURSE HOLDER: PhD Associate Professor Doina ROȘCA

YEAR/ SEMESTER: 4th Year / 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 10

COURSE TYPE: specialized

COURSE OBJECTIVES: Theoretical notions of computer-assisted design in landscaping. Acquiring the knowledge and skills required to design green spaces with the help of specific software applications.

TOPICS: Presentation of landscape design programs: 3D Home Architect - Landscape Design, Instant Landscaping, Realtime Landscape Architect. Drawing in plan, adding specific objects (Building, Terrain, Landscape, Water Features, Swimming Pool, Utilities, Plan detail), knowing their properties and their components; Property setting, default properties. Editing Objects (select, move, rotate, scroll, mirror, delete, align, multiply). Structuring drawings, working with layers (layers); Editing Points. Plants - symbols, information, labels, properties, legend for plants. Views in plan and space; Adding plan to details

TEACHING LANGUAGE : Romanian

KNOWLEDGE ASSESSMENT: answers to exam 70%, final answers to Laboratory works 30%

ASSESSMENT TYPE: exam

REFERENCES:

1. Simion Ionel, 2007 - AutoCAD pentru ingineri, Editura TEORA.
2. Omura George, 2006 - AutoCAD, Editura TEORA, Seria EXPERT.
3. Frey David, 2007 - AutoCAD, Editura TEORA.
4. Grădina mea: idei pentru curți, terase și balcoane, John Brookes, Ed. Teora, București, 2007
5. Grădini ingenioase, Ed. House of Guides, București, 2008
6. *** - software documentation

LEGISLATION AND ENVIRONMENTAL COMMUNITY POLICIES

CODE: D29PEL853

CREDITS: 3

COURSE HOLDER: Ph.D Professor Nicolae GIUGEA

YEAR/SEMESTER: 4th Year / 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 1 hour of practical course

NUMBER OF WEEKS: 10

COURSE TYPE: specialized

COURSE OBJECTIVES: Knowledge and understanding of the premises concerning the appearance and application of environmental policies; the explanation of implementation methods and the supporting instruments; the promotion of performant and durable agriculture; the manifestation of a promotion attitude toward environmental policies.

THEMES: Introduction to the environmental policy in Romania and the European Union. Objectives and principles. The instruments of environmental policy. Strategies in environmental policy, institutions that have responsibilities in the domain, legislation.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 80 % of exam answers, 20% of final answers to workshops

ASSESSMENT TYPE: verification

BIBLIOGRAPHY:

1. Ciupeanu E.D., Țucă O., Murărița I. – Management ecologic. Editura Universitaria Craiova, 2008.
2. Culic A., Petrescu R. M., - Managementul și legislația deșeurilor, EFES, Cluj - Napoca, 2006.
3. Neacșu P., Olteanu I., Olteanu E.G. – Ecologie și protecția juridică a mediului. Ed. Universitaria Craiova, 2000.
4. Marinescu D. - Tratat de dreptul mediului, Editura All Beck, București, 2003.

ORNAMENTAL CROPS BREEDING

CODE: D29PEL854

CREDITS: 4

COURSE HOLDER: PhD Professor Mihai BOTU

YEAR/SEMESTER: 4th Year / 2nd semester

NUMBER OF HOURS PER WEEK: 2 hours of course, 2 hours of practical course

NUMBER OF WEEKS: 10

COURSE TYPE: domain

COURSE OBJECTIVES: Knowledge of the role, importance and need for genetic improvement of horticultural plants for sustainable human society. The role and importance of horticultural genetic resources for use in plant breeding. Establishment of specific breeding objectives and horticultural plant genetic improvement. Conventional and modern methods of transformation and selection of new genotypes and their implications. Knowledge of the most important breeding results of major ornamental crops. Knowledge and learning the peculiarities of the production of horticultural seed and planting material according to the Romanian legislation and EU directives.

TOPICS: Organization and management of breeding works in horticultural crops. Breeding of *Rosa*, *Dianthus*, *Tulipa*, *Gladiolus*, *Chrysantemum*, *Hippeastrum*, *Rhododendron*, *Syringa*, *Magnolia*, *Prunus*, *Malus*, *Thuja* - current requirements, guidelines and trends in improving the cultivars. Biological basis and breeding objectives, cytology, germplasm resources. Production of seed and planting material. Protection of plant breeding rights.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: 75% of the final grade represent the response to the written theoretical questions and 25% of the final grade the answers to practical laboratory questions.

ASSESSMENT FORM: Exam

REFERENCES:

1. Botu M., 2008. Metode convenționale și moderne în ameliorarea plantelor horticole. Editura Conphys, Râmnicu Vâlcea.
2. Callaway D.J. and Callaway M.B., 2000. Breeding Ornamental Plants. Timber Press, Portland, Oregon.
3. Chahal G.S. and Gosal S.S., 2002. Principles and Procedures of Plant Breeding: Biotechnological and Conventional Approaches. Narosa; 1st edition.
4. Munteanu N. 2000. Ameliorarea plantelor ornamentale. Ed. Ion Ionescu de la Brad, Iași.
5. Poehlman J.B. and Sleper D.A. 1995. Breeding Field Crops. Iowa State Press; 4th edition.
6. Sestraș, R., 2004. Ameliorarea speciilor horticole. Ed. AcademicPres, Cluj-Napoca.

LANDSCAPING AND MAINTENANCE OF GREEN SPACES

CODE: D29PEL855

CREDITS: 4

COURSE COORDINATOR: Ph.D, Associate Professor, Carmen NICU

YEAR / SEMESTER: 4th year/ 2nd semester

NUMBER OF HOURS PER WEEK: 2 hour of course, 2 hours of practical works

NUMBER OF WEEKS: 10

COURSE TYPE: specialized

COURSE OBJECTIVES: Knowledge of the principles and techniques of landscaping. Knowing the ways of using and associating of dendrologic and flower species in the urban green spaces, in parks and gardens, in the realization of floral compositions. Acquiring the necessary knowledge to apply land preparation works, planting of dendrologic and flower species, establishment of the lawn and the specific green spaces maintenance works.

TOPICS: The importance of green spaces arrangement. Stages and specific activities in green spaces arrangement. Making and maintenance of an alpine garden (rockery). Landscaping a sloped garden. Building and maintenance of ornamental ponds. Establishment and maintenance of the lawn. Planting and maintenance of ornamental woody species (trees and shrubs), used in green spaces. Ways of

flower species arranging in green spaces. Planting and maintenance of flower species used in the green spaces.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: Exam answers 60%, activities such as papers, projects 40%.

ASSESSMENT FORM: exam

REFERENCES:

1. Anton Doina, Nicu Carmen, 2005. Floricultură specială. Culturi floricole în câmp. Vol. I. Editura Universitaria, Craiova.
2. Dumitraș Adelina, Zaharia D., Singureanu V., Sabo Georgeta, 2008. Principii generale de proiectare și amenajare a spațiilor verzi. Editura AcademicPres, Cluj-Napoca.
3. Iliescu Ana-Felicia, 2003. Arhitectură peisageră. Editura Ceres, București.
4. Moisuc A., Pleșa Claudia, Giuchici Camelia, 2001 - Gazonul, știință și artă. Editura Agroprint, Timișoara.
5. Toma F., 2005. Îngrijirea și pregătirea pentru iarnă a speciilor floricole din parcuri și grădini. Ed. Lucman, București.

MARKETING

CODE: D29PEL856

CREDITS: 2

COURSE HOLDER: Ph.D, Associate Professor, Radu Lucian PÂNZARU

YEAR/SEMESTER: 4th year/ 2nd semester

NUMBER OF HOURS PER WEEK: 1 hour of course, 1 hour of practical course

NUMBER OF WEEKS: 10

COURSE TYPE: domain

COURSE OBJECTIVES: Knowledge of the market notions: product, price, distribution, advertising, etc; understanding the type of organizing specific activities of marketing from the organizational and technical point of view.

THEMES: Introductory notions of marketing. The market of food products. Prevision in marketing. Marketing mix. Negotiations.

LANGUAGE OF INSTRUCTION: Romanian

KNOWLEDGE ASSESSMENT: 70 % of answers to exam, 30% of answers to workshops

ASSESSMENT TYPE: verification

BIBLIOGRAPHY:

1. Constantin M. și colab., 1999, Agromarketing, Ed. Didactică și Pedagogică, București.
2. Constantin M. și colab. 2002, Marketingul producției agroalimentare, Ed. Universitaria, Craiova
3. Constantin M. și colab., 2009, Marketingul producției agroalimentare, Ed. Agro Tehnica, București
4. Manole V., Stoian Mirela, 2001, Agromarketing, Editura ASE, București
5. Meghișan M., Nistorescu T., 1998, Bazele marketingului, Editura Scrisul Românesc, Craiova
6. Pânzaru R.L., 1999, Marketing agroalimentar, Universitatea din Craiova
7. Pânzaru R.L., Medelele D. M., Ștefan G., 2007, Elemente de management și marketing în agricultură, Ed. Universitaria Craiova

PRACTICE AND ELABORATE DIPLOMA PROJECT

CODE: D29PEL857

CREDITS: 10

COURSE COORDINATOR: Professor, PhD, Rodi MITREA

YEAR / SEMESTER: 4th year/ 2nd semester

NUMBER OF HOURS PER WEEK: 30

NUMBER OF WEEKS: 4

COURSE TYPE: specialized

COURSE OBJECTIVES: Students ability to perform independent work of documentation and research, to generate data and original conclusions. The diploma project must certify the graduate's professional maturity and meet certain minimal requirements of content, form and scientific level. The ability to draw conclusions and propose solutions based on the results of the analyzes performed, in accordance with the field of interest.

TOPICS: Establishing the structure and bibliography of the paper as a result of the study of the specialized literature. Finalizing the research methodology in order to achieve the proposed objectives. Editing of the paper. Preparing presentations to support the diploma project. Presentation of the study results.

TEACHING LANGUAGE: Romanian

KNOWLEDGE ASSESSMENT: Presentation of the diploma project 100%

ASSESSMENT FORM: verification

REFERENCES:

Ghidul de elaborare și prezentare a lucrărilor de diplomă.

(<http://cis01.central.ucv.ro/horticultura/files/studenti/>)

MEDICINAL AND AROMATIC PLANTS GROWN

CODE: D29PEL858

CREDITS: 3

COURSE COORDINATOR: PhD. Associate Professor Maria DINU

YEAR/SEMESTER: 4th year/ 2nd semester

HOURS PER WEEK: Course – 2 hours/Practical work – 2 hours

NUMBER OF WEEKS: 10

TYPE OF COURSE: specialized

COURSE OBJECTIVES: Acquiring the knowledge about the biology and ecology of medicinal and aromatic plants and their cultivation technologies. Customizing the knowledge of plant growth and development, relationships with vegetation factors and elements of the cultivation technology of this group of plants.

TOPICS: Importance, classification and protection of cultivated medicinal and aromatic plants. Establishing technology for the cultivation of medicinal and aromatic plants, methods of setting up the crop by sowing or planting and harvesting them. Storage and marketing of medicinal and aromatic plants.

TEACHING LANGUAGE : Romanian

KNOWLEDGE ASSESSMENT: answers to exam 80%, verification 20%

ASSESSMENT FORM: colloquy

REFERENCES:

1.Maria Dinu. Plante medicinale și aromatice cultivate. Notițe de curs

2.S. Muntean, L.S., Muntean,S.,2011. Curs de plante medicinale. Editura Risoprint,Cluj-Napoca.

3.Emilia Constantinescu,2008.Cultura plantelor medicinale și aromatice.Editura Universitaria Craiova