

DISCIPLINE SHEET

1. Data about program

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| 1.1 Academic institution | 1.1 Institution of higher education | UNIVERSITY OF ORADEA |
| 1.2 Faculty | 1.2 Faculty | FACULTY OF ENVIRONMENTAL PROTECTION |
| 1.3 Department | 1.3 Department | AGRICULTURE AND HORTICULTURE |
| 1.4 Field of study | 1.4 Field of study | LANDSCAPING |
| 1.5 Cycle of study | 1.5 Cycle studies | BACHELOR |
| 1.6 Study programme/Qualification | 1.6 Curriculum/Qualifications | LANDSCAPING/ ENGINEER |

2. Data about the disciplines

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|------------------------|--------------------------------------------|--------------|----|------------------------|----|--------------------------|----|
| 2.1 Name of discipline | DRAWING AND GRAPHIC REPRESENTATIONS | | | | | | |
| 2.2 Course holder | Lecturer dr.eng. IANCU CARMEN VIOLETA | | | | | | |
| 2.3 Laboratory holder | Lecturer dr.eng. IANCU CARMEN VIOLETA | | | | | | |
| 2.4 Year of study | II | 2.5 Semester | IV | 2.6 Type of evaluation | Ex | 2.7 Regime of discipline | Ob |

Ob – Compulsory; As – associated; Op – Optional.

3. Total estimated time (hours per semester of didactic activities)

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|-----------------------------------------------------------------------------------------------|----|--------------------------|----|-----------------------------|-------|
| 3.1 Number of hours per week | 3 | 3.2 out of which: course | 1 | 3.3 out of which laboratory | 2 |
| 3.4 Total hours in the curriculum | 56 | 3.5 out of which: course | 14 | 3.6 out of which laboratory | 28 |
| Time allotment | | | | | hours |
| Study assisted by manual, course support, bibliography and notes | | | | | 6 |
| Additional documentation in the library/ on specialised electronic platforms and in the field | | | | | 5 |
| Preparation of seminars/laboratories/ topics/reports, portfolios and essays | | | | | 10 |
| Tutorship | | | | | 2 |
| Examinations | | | | | 4 |
| Additional documentation in the library/ on specialised electronic platforms and in the field | | | | | 1 |
| 3.7 Total hours of individual study | 28 | | | | |
| 3.9 Total hours per semester | 84 | | | | |
| 3.10 Number of credits | 3 | | | | |

4. Prerequisites (where appropriate)

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| 4.1 curriculum | Technical drawing |
| 4.2 competences | Knowledge of laboratory equipment |

5. Conditions (where appropriate)

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| 5.1. related to course | <ul style="list-style-type: none"> Students will not be present at lectures, seminars/laboratories with mobile phones. It also will not be tolerated during phone calls, nor leaving by the students of the course with a view to taking over personal telephone calls; The delay of students in the course and the laboratory will not be tolerated as it proves disruptive to the educational process. |
| 5.2. related to seminar/laboratory/ project | <ul style="list-style-type: none"> The term teaching seminar work shall be established by agreement with the holder of the students. Will not be accepting applications for deferment thereof on grounds other than objective grounds. Also, for the teaching of the late works of seminar/lab work will be depunctate with 1 point per day of delay. |
| 6. Specific competences acquired | |

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| Professional competences | <p>C1.1. Description of the scientific, theoretical and practical fundamentals that lie at the base of the application of sustainable horticultural production technologies</p> <p>C1.3. Application of modern horticultural production technologies, customized</p> <p>C2.1. Definition of the technical and economic elements underlying the organization and functioning of a profitable horticultural farm</p> <ul style="list-style-type: none"> • C2.3. Application of optimal strategies for the organization of farms, the realization of asolaments and the definition of types of horticultural production |
| Cross-sectional competence | <ul style="list-style-type: none"> • CT1. Elaboration and observance of a work programme and the realization of own tasks with professionalism and rigor • CT2. Applying effective communication techniques in team-specific activities; taking a role within the team and respecting the principles of division of work • CT3. Objective self-assessment of the need for continuous vocational training in order to adapt and constantly respond to the demands of economic development; the use of information and communication techniques and, at best, a language of international circulation; |

7. Objectives of discipline (coming from the specific competences acquired)

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| 7.1 General objective | <ul style="list-style-type: none"> • The Drawing and Graphics course aims to familiarize students with the study, usefulness, knowledge, understanding of the concepts, theories and basic materials of the field and specialized areas, as well as their appropriate use in the professional community • Students have the opportunity to familiarize with graphic science, the skill of practical capabilities on the construction of graphic representations treated by drawing discipline and graphic representations that are based on the method of projections that spring from the mechanism of human vision • The discipline aims to study the methods of flat presentation of objects in the three-dimensional space, using established rules and methods, as well as conventional rules established by state standards water routes in the technical field. |
| 7.2 Specific objectives | <ul style="list-style-type: none"> • Applying basic principles and methods for problem solving, well-defined situations typical of the domain • The course includes a single from: drawing and graphic representations, which deals with the study of methods of representation of elements (points, straights and surfaces) in the three-dimensional space in the plane of paper that has two dimensions and vice versa; the technical drawing, which deals with the study of the methods of representation in descriptive geometry, as well as the rules and convention laid down in the state standards, the mode of perspective representation of the elements in nature. The content of the laboratory work presented is based on the need to deepen the |

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| | <p>problems presented in the course.</p> <ul style="list-style-type: none"> • They will understand the complexity and usefulness of this and treat it as such. Knowledge is useful in training skills to address specific problems faced by a horticultural specialist. |
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8. Content *

| 8.1 Course | Methods of teaching | No. of hours/Remarks |
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| 1. introduction 1.1. Purpose and use of drawing and graphics | Interactive lecture with video projector | 2 |
| 1. Methods of plane representation of space elements. 2.1 Projection systems 2.2. Types of axonometric representations | Interactive lecture with video projector | 2 |
| 3. Representation of the point. 3.1. Double orthogonal projection of the point 3.2. Triple orthogonal projection of the point 3.3. Bisector planes 3.4. Points located in projection panels 3.5. Visibility | Interactive lecture with video projector | 2 |
| 4. Representation of the right. 4.1. Projections of the right. 4.2. The footprints of the right. | Interactive lecture with video projector | 2 |
| 5. The positions of a straight versus the planes is projection. 5.1. particular positions of a straight to the projection planes. 5.2. Divide a straight into regions 5.3. Relative positions of two straight. | Interactive lecture with video projector | 2 |
| 6. Plan. 6.1. Representation of the plan. 6.2. Particular straight of a plan | Interactive lecture with video projector | 2 |
| 7. Planul. 7.1. Geometric figures contained in the plane. 7.2. Positions of a plane in relation to projection planes. 7.3. Relative positions of two planes | Interactive lecture with video projector | 2 |
| 8. Plan. 8.1. Position of a straight versus a plane 8.2. Intersection between two geometric figures | Interactive lecture with video projector | 2 |
| 9. Methods of descriptive geometry 9.1. Method of changing projection planes. 9.2. Rotate method. | Interactive lecture with video projector | 2 |
| 10. Methods of descriptive geometry 10.1. Rabateria method 10.2. Raising the re-abating. | Interactive lecture with video projector | 2 |
| 11. Representation of geometric bodies. 11.1. Representation of polyedres. 11.2. Representation of bodies with revolution | Interactive lecture with video projector | 2 |

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| surfaces. 11.3. Construction of geometric bodies. | | |
| 12. Sectioning of geometric bodies. 12.1.Flat sections in polyedre 12.2. Sectioning of cylindrical surfaces. 12.3. Sectioning the sphere | Interactive lecture with video projector | 2 |
| 13. Deployment of surfaces of geometric bodies 13.1. Development of polyhedra 13.2. Deployment of cylindrical-conical surfaces | Interactive lecture with video projector | 2 |
| 14. Deployment of combined surfaces | Interactive lecture with video projector | 2 |
| 8.2. Laboratory | | |
| 1. Specific labour protection rules. Axonometric representation of geometric bodies | Presentation by the didactic Coordinator of the laboratory works of notions related to specific safety Demonstration, food idustria analysis, determination and exposure | 2 |
| 2. Methods of plane representation of space elements 2.1.Problems Solved 2.2.Proposed problems | Demonstration, analysis, and exposure | 2 |
| 3. Representation of the point 3.1. Problems Solved 3.2.Proposed problems | Demonstration, analysis, and exposure | 2 |
| 4. Representation of the right. 4.1.Problems Solved 4.2. Proposed problems | Demonstration, analysis, and exposure | 2 |
| 5. Positions of a straight versus projection planes 5.1. Problems Solved 5.2. Proposed problems | Demonstration, analysis, and exposure | 2 |
| 6. Plan (Part I) 6.1. Problems Solved 6.2. Proposed problems | Demonstration, analysis, and exposure | 2 |
| 7. Plan (Part II) 7.1. Problems Solved 7.2. Proposed problems | Demonstration, analysis, and exposure | 2 |
| 8. Plan (Part III) 8.1.Problems Solved 8.2. Proposed problems | Demonstration, analysis, and exposure | 2 |
| 9. Methods of descriptive geometry (I) 9.1. Problems Solved 9.2. Proposed problems | Demonstration, analysis, and exposure | 2 |
| 10. Methods of descriptive geometry (II). 10.1.Problems Solved 10.2.Proposed problems | Demonstration, analysis, and exposure | 2 |
| 11. Representation of geometric bodies 11.1. Problems Solved 11.2. Proposed problems | Demonstration, analysis, and exposure | 2 |
| 12. Sectioning of geometric bodies 12.1. Problems Solved 12.2. Proposed problems | Demonstration, analysis, and exposure | 2 |
| 13. Deployment of surfaces of geometric bodies 13.1. Problems Solved 13.2. Proposed problems | Demonstration, analysis, and exposure | 2 |

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| 14. Deployment of combined surfaces. 14.1. Problems Solved 14.2. Proposed problems | | |
| Bibliography <ol style="list-style-type: none"> 1. Iancu Carmen, Utilaje în industria alimentară, suport curs, Edit. Universității din Oradea, 2011 2. Îndrumar de lucrări practice de laborator, Gheorghe Ailoeaie, Galați, 1995 3. Măsurări electrice, vol. I, Metrologie, aparate de măsură analogice, Antoniu M., Editura Gheorghe Asachi, Iași, 1995 4. Contorul ALPHA @ Power+ MANUAL TEHNIC - Elster Rometrics, Timișoara, 2003 5. Echipamente electrice – Nicolae Badea, Editura Matrix Rom București, 2008, ISBN 978-973-755-307-2 6. Mașini electrice II, Aurel Câmpeanu, Ion Vlad, Tipografia Universității din Craiova, 2003 7. ELECTROTEHNICĂ, Dumitrescu Mariana, Munteanu Toader - Editura Europlus Galati, 2006, ISBN (10) 973-7845-26-9, ISBN (13) 978-973-7845-26-9 8. Electrotehnică și electronică, Grigore Fetecău, - Editura Academica Galați, 2006, ISBN 973-8316-96-0 9. Măsurări electrice și electronice, Grigore Fetecău, Editura Didactică și Pedagogică, București, 2003, ISBN 973-30-2667-0 10. Mașini și acționări electrice – elemente de execuție, Alexandru Fransua, Răzvan Măgureanu, Editura Tehnică, București, 1986 | | |

9. Corroboration of discipline content with the expectations of the epistemic community, professional associations and representative employers from the field corresponding to the study programme

The content of the discipline is adapted and meets the requirements imposed by the labour market, being agreed by social partners, professional associations and employers in the field of the license program. The content of the discipline is found in the curriculum of the specialization of Horticulture and other university centers in Romania that have accredited these specializations, so knowledge of the basics is a pressing requirement of employers in the horticultural field

10. Evaluation

| Type of activity | 10.1 Evaluation criteria | 10.2 Evaluation methods | 10.3 Share in the final grade |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------|
| 10.4 Course | for note 5– knowledge of material 50% for note 10 – knowledge of material 100% | Summative assessment- sample exam-written or oral | 80% |
| 10.5 Seminar | - | - | - |
| 10.6 Laboratory | Test with 5 questions at the end of the laboratory works | Continuous evaluation in the laboratory; knowledge verification laboratory | 10% 10% |
| 10.7 Project | - | - | - |
| 10.8 Minimum standard of performance | | | |
| <ul style="list-style-type: none"> Performing work under the coordination of a teacher, to solve problems specific to Graphic Science, with the correct evaluation of the workload, available resources, time required to complete and risks, under conditions of application of occupational safety and health rules | | | |

Date of completion
01.06.2023

Signature of course holder
Lecturer dr.eng. Iancu Carmen
E-mail: (ciancu@uoradea.ro)
E-mail: (ciancu2000@yahoo.com)

Signature of laboratory holder
Lecturer dr.eng. Iancu Carmen Violeta
E-mail: (ciancu@uoradea.ro)
E-mail: (ciancu2000@yahoo.com)

Date of approval in the department

Signature of the Head of Department

Assoc.Prof.PHD.Eng.Timar Adrian
atimar@uoradea.ro

Dean signature
Assoc.Prof.PHD.Eng.MAERESCU Cristina Maria