Annex 6

DISCIPLINE DESCRIPTION

1. Information on the study programme

1.1 Academic institution	**UNIVERSITY OF ORADEA**
1.2 Faculty	**FACULTY OF ENVIRONMENTAL PROTECTION**
1.3 Department	**Enviromental Engineering**
1.4 Field of study	**Enviromental Engineering**
1.5 Cycle of study	**BACHELOR**
1.6 Study programme/Qualification	**Engineering of biotechnical and ecological systems / Engineer**

2. Information on the discipline

2.1 Name of discipline			Meteorology and Climatology II				
2.2 Course holder			Lecturer Pereş Ana Cornelia				
2.3 Seminar/Laboratory/Project holder			Lecturer Pereş Ana Cornelia				
2.4 Year of study	I	2.5 Semester	II	2.6 Type of evaluation	Ex Pr	2.7 Regime of discipline	I

(C) Compulsory; (O) Optional; (E) Elective

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

3.1 Number of hours per week	3	out of which: 3.2 course	2	out of which 3.3 seminar/laboratory/project	1
3.4 Total hours in the curriculum	42	out of which: 3.5 course	28	out of which 3.6 seminar/laboratory/project	14

Time allotment	hours
Study assisted by manual, course support, bibliography and notes	25
Additional documentation in the library/ on specialised electronic platforms and in the field	15
Preparation of seminars/laboratories/ topics/reports, portfolios and essays	6
Tutorship	5
Examinations	6
Other activities.....	1
3.7 Total hours of individual study	**58**
3.9 Total hours per semester	**100**
3.10 Number of credits	**3+1**

4. Prerequisites (where appropriate)

4.1 curriculum	Knowledge of physical and physical geography in high school textbooks
4.2 competences	Fundamentals of mathematical computing and interpretation of various graphic materials (maps, sketches, graphs).

5. Conditions (where appropriate)

5.1. related to course	Computer room (laptop) and videoproiector
5.2. related to seminar/laboratory/ project	Laboratory with specialized equipment

6. Specific competences acquired	
Professional competences	C1.4 Qualitative and quantitative analysis of natural phenomena and technological processes to prevent and mitigate environmental impacts C2.4 Qualitative and quantitative assessment of natural phenomena and anthropogenic activities on the quality of environmental factors C3.1 Identification and use of instrumental instruments and instruments necessary to monitor environmental factors
Transversal competences	CT3. Effective use of information sources and communication resources and assisted professional training (portals, Internet, specialized software applications, databases, on-line courses, etc.) both in Romanian and in an international language

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

7.1 General objective	Understanding the role of the atmosphere in the environmental system as well as the relationship between the air covering and the other components of the geographical environment, including man and his activity.
7.2 Specific objectives	In the course, they consist in defining the main meteorological and climatic elements and in understanding the interconditioning between the main processes and atmospheric phenomena. Also, it is intended to know the problems related to the current trends observed in the evolution of the climate. In practical work, the emphasis is on knowing the quantitative and qualitative parameters that define the main meteorological and climatic elements.

8. Content*/

8.1 Course	Methods of teaching	No. of hours/Remarks
1. Synoptic meteorological notions: air masses, atmospheric fronts, atmospheric disturbances.	Exposure, conversation lecture, video projector	4

	images	
2. Getting Started with Meteorological Forecasts.	Exposure, conversation, video projector images	2
3. Radiant climatogenic factors. The distribution of total radiation to the Earth's surface. The geographical distribution of the radiative-caloric balance on the Earth's surface.	Exposure, conversation lecture, video projector images	2
4. Dynamic climatic factors The fundamental features of the general atmosphere movement. The barric field and planetary current systems in the upper troposphere and the stratosphere. The barric field and atmospheric circulation in the lower troposphere and the terrestrial surface. The climatogenetic importance of the aliens and the equatorial area. Monsoon circulation. Climate role of ocean currents.	Exposure, conversation lecture, video projector images	2
5. Physico-geographic climatogenic factors; Climatic Anthropic Factors. The influence of the land and the sea on the climate. Influence of relief on the climate. The influence of vegetation on the climate. Influence of the snow and ice layer on the climate. Anthropic influence on the climate.	Exposure, conversation lecture, video projector images	4
6. Geographical distribution of the main climatic elements.	Exposure, conversation lecture, video projector images	2
7. Climate classification. Basic issues of climate classification. Climate classification by W. Koppen. classification climate after Emmanuel De Martonne. Climate classification after L.S. Berg. Climate classification after B.P. Alisov.	Exposure, conversation lecture, video projector images	4
8. Geographic climate patterns. Climate types in the equatorial area. Climate types in sub-environments. Climate types in tropical areas. Climate types in subtropical areas. Climate types in temperate areas. The climate types in the subarctic and sub-tantric areas. Climate types in Northern and Southern polar regions.	Exposure, conversation lecture, video projector images	4
9. Climate fluctuations.	Exposure, conversation lecture, video projector images	2

10. Climate risks.	Exposure, conversation lecture, video projector images	2

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8.2 Seminar	Methods of teaching	No. of hours/ Remarks
8.3 Laboratory		
8.4 Project		
1. Data processing resulting from meteorological observations in order to achieve a general climatic synthesis. Homogenization of weather observation strata	Explanations on how data is processed	1
2. Processing of air temperature data	Explanations on how data is processed and graphical representation	2
3. Data processing of air humidity	Explanations on how data is processed and graphical representation	1
4. Data processing of atmospheric nebulosity	Explanations on how data is processed and graphical representation	1
5. Processing data on sunshine duration	Explanations on how data is processed and graphical representation	1
6. Data processing of atmospheric precipitation	Explanations on how data is processed and graphical representation	2

7. Data processing on atmospheric pressure	Explanations on how data is processed and graphical representation	1
8. Processing of eoline data	Explanations on how data is processed and graphical representation	1
9. Data processing on the main meteorological phenomena	Explanations on how data is processed and graphical representation	2
10. Project support	Supporting and teaching the project.	2

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* The content, respectively the number of hours allocated to each course / seminar / laboratory / project will be detailed during the 14 weeks of each semester of the academic year.

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 designed to deal with many problems specific to practical work so that graduates can fit into different fields of activity related to the atmospheric environment.

• Upon completion of the studies, the graduates will be able to work in: education, research, units of the National Meteorological Administration and the National Administration "Romanian Waters", as workers in the county environmental protection agencies in the area of planning and systematizing the territory as members in committees for emergency situations, as workers in travel agencies, etc.

10. Evaluation

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the final grade
10.4 Course	The degree of acquisition of taught matter	Oral exam at the end of the semester	100%

10.5 Seminar	-	-	-
10.6 Laboratory	-	-	-
10.7 Project	knowledge for Note 5: Minimum technical content of the project knowledge for note 10: correct data processing on meteorological parameters and their correct graphic representation	Supporting the project	100%
10.8 Minimum standard of performance			
• drafting the project; • passing the theoretical exam with grade 5 (five).			

Date of completion

mai 2021

Signature of course holder**

Lecturer PEREŞ ANA CORNELIA
peresana35@yahoo.com

Signature of seminar laboratory/project holder **

Lecturer PEREŞ ANA CORNELIA
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Date of approval in the department
.....

Signature of the Head of Department
Assoc. prof. LASLO VASILE

Dean signature
Prof. CHEREJI IOAN