**COURSE OUTLINE**

1. **GENERAL**

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| **SCHOOL** | SCHOOL OF HEALTH |
| **DEPARTMENT** | BIOLOGICAL APPLICATIONS AND TECHNOLOGY |
| **CURICULUM OF STUDIES** | UNDERGRATUATE |
| **LESSON CODE NUMBER** | BEE725 | **SEMESTER** | **7th-9th** |
| **LESSON TITLE** | ENVIRONMENTAL DATA ANALYSIS |
| **TEACHING ACTIVITIES** | **TEACHING HOURS PER WEEK** | **ECTS** |
| Theory | 1 | 3 |
| Lab | 2 |
| **COURSE TYPE** | Specialised general knowledgeSkills Development |
| **PREQUISITIES:** | Mathematics, Statistics |
| **TEACHING AND EXAMINATION LANGUAGE:** | English |
| **ERASMUS** | The course is offered to exchange students. |

**LEARNING OUTCOME**

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| **LEARNING OUTCOME** |
| The students would learn how to* interpret environmental data
* treat data (qualitative and quantitative)
* apply statistical models to their data
* present the results of data analysis
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| **GENERAL SKILLS** |
| * Apply knowledge in practice
* Retrieve, analyse and synthesise data and information, with the use of necessary techniques
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1. **LESSON SUBJECT**

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| Types of environmental data. Introduction to the R programming environment. Data structures and Managing data. Time series models and environmental data. The meaning of environmental variability. Graphical presentations. Basic analyses such as *t*‑tests, ANOVA and linear regression. Generalized linear models. All techniques will be illustrated with applications to problems in population biology, biodiversity, climatology and other instances of the biological environment.  |

1. **TEACHING AND LEARNING METHODS–EVALUATION**

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| **COURSE OF TRAINING** | Face to face |
| **USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES** | * Use of ICT in Course Teaching
* Use of ICT in Laboratory Teaching
* Use of ICT in Communication with Students
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| **TEACHING PROGRAMME** |

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| ***ACTIVITY*** | ***WORKLOAD*** |
| Lectures | 13 |
| Laboratory exercises | 26 |
| Tutorial exercises | 26 |
| Process scientific papers | 9 |
| Use of pc applications | 9 |
| Total workload | ***83*** |

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| **STUDENT EVALUATION** | Written Exam with Short Answer Questions (Summative)Written Exam with Problem Solving (Summative) Written report |

1. **ATTACHED BIBLIOGRAPHY**

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| --- |
| Verzani, John. "Using R for Introductory Statistics." New York: CUNY, 0.4 edition URL http://www. math. csi. cuny. edu/Statistics/R/simpleR/index. html 106 (2002). |