**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 knowledge  Skills 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 |
| **GENERAL SKILLS** |
| * Apply knowledge in practice * Retrieve, analyse and synthesise data and information, with the use of necessary techniques |

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