

# COURSE OUTLINE

## 1 GENERAL

|                                                                                                                                                                                                                                                                        |                                                                                 |                              |                |
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| <b>SCHOOL</b>                                                                                                                                                                                                                                                          | School of Applied Biology and Biotechnology                                     |                              |                |
| <b>ACADEMIC UNIT</b>                                                                                                                                                                                                                                                   | Department of Biotechnology                                                     |                              |                |
| <b>LEVEL OF STUDIES</b>                                                                                                                                                                                                                                                | Postgraduate (Level 7)                                                          |                              |                |
| <b>COURSE CODE</b>                                                                                                                                                                                                                                                     | (To be assigned)                                                                | <b>SEMESTER</b>              | 1st            |
| <b>COURSE TITLE</b>                                                                                                                                                                                                                                                    | Disease Ecology                                                                 |                              |                |
| <b>INDEPENDENT TEACHING ACTIVITIES</b><br><i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, state the weekly teaching hours and the total credits</i> |                                                                                 | <b>WEEKLY TEACHING HOURS</b> | <b>CREDITS</b> |
| Lectures & Guided Study ((Virtual & Pre-recorded)                                                                                                                                                                                                                      |                                                                                 | 3                            |                |
| Case-study seminars / discussions / Group Projects                                                                                                                                                                                                                     |                                                                                 | 1                            |                |
| <b>TOTAL</b>                                                                                                                                                                                                                                                           |                                                                                 | 4                            | 6 ECTS         |
| <i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail in section (4).</i>                                                                                                                                       |                                                                                 |                              |                |
| <b>COURSE TYPE</b><br><i>general background, special background, specialization, general education, skills development</i>                                                                                                                                             | Specialization / Special Background                                             |                              |                |
| <b>PREREQUISITE COURSES</b>                                                                                                                                                                                                                                            | Cell Biology and Genetics or equivalent background in Biology/Biotechnology.    |                              |                |
| <b>LANGUAGE OF INSTRUCTION AND OF ASSESSMENT</b>                                                                                                                                                                                                                       | English                                                                         |                              |                |
| <b>MODE OF TEACHING</b><br><i>in-person (%)</i><br><i>synchronous distance learning (%)</i><br><i>asynchronous distance learning (%)</i><br><i>(In the case of synchronous distance learning, the total weekly duration of teaching is recorded)</i>                   | Synchronous distance learning (75%)<br><br>Asynchronous distance learning (25%) |                              |                |
| <b>AVAILABILITY TO ERASMUS STUDENTS</b>                                                                                                                                                                                                                                | No                                                                              |                              |                |
| <b>COURSE WEBSITE (URL)</b>                                                                                                                                                                                                                                            | <a href="https://purdue.brightspace.com">https://purdue.brightspace.com</a>     |                              |                |

## 2 LEARNING OUTCOMES

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| <b>Learning Outcomes</b><br><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i><br><i>Consult Appendix A</i> <ul style="list-style-type: none"> <li>• Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</li> <li>• Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</li> <li>• Brief Guide for drafting Learning Outcomes</li> </ul> |
| <p>Upon successful completion of the course, students will be able to:</p> <ul style="list-style-type: none"> <li>• Evaluate the roles played by the diversity of parasites and pathogens found in complex natural systems.</li> <li>• Apply foundational principles of disease ecology (hosts, pathogens, and the</li> </ul>                                                                                                                                                                                                                                                                                                                                     |

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| <p>environment) to understand disease dynamics.</p> <ul style="list-style-type: none"> <li>• Evaluate the strengths and weaknesses of different modeling approaches in disease ecology.</li> <li>• Understand how disease models are utilized in management and conservation.</li> <li>• Apply ecological and evolutionary theory to examine the impact of infectious disease on populations, communities, and ecosystems.</li> <li>• Demonstrate an understanding of patterns in pathogen diversity and abundance across landscape and regional scales.</li> <li>• Articulate complex disease ecology concepts through written and oral communication.</li> <li>• Critically evaluate scientific literature and research in interdisciplinary topics.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                 |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
| <p><b>General Competences</b></p> <p><i>Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and are stated below), at which of the following does the course aim?</i></p> <table> <tr> <td><i>Search, analysis and synthesis of data and information, with the use of the necessary technology</i></td><td><i>Project planning and management</i></td></tr> <tr> <td><i>Adaptability to new situations</i></td><td><i>Respect for difference and multiculturalism</i></td></tr> <tr> <td><i>Decision-making</i></td><td><i>Respect for the natural environment</i></td></tr> <tr> <td><i>Working independently</i></td><td><i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i></td></tr> <tr> <td><i>Team work</i></td><td><i>Criticism and self-criticism</i></td></tr> <tr> <td><i>Working in an international environment</i></td><td><i>Production of free, creative and inductive thinking</i></td></tr> <tr> <td><i>Working in an interdisciplinary environment</i></td><td><i>.....</i></td></tr> <tr> <td><i>Production of new research ideas</i></td><td><i>Other...</i></td></tr> <tr> <td></td><td><i>.....</i></td></tr> </table> |                                                                                                 | <i>Search, analysis and synthesis of data and information, with the use of the necessary technology</i> | <i>Project planning and management</i> | <i>Adaptability to new situations</i> | <i>Respect for difference and multiculturalism</i> | <i>Decision-making</i> | <i>Respect for the natural environment</i> | <i>Working independently</i> | <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> | <i>Team work</i> | <i>Criticism and self-criticism</i> | <i>Working in an international environment</i> | <i>Production of free, creative and inductive thinking</i> | <i>Working in an interdisciplinary environment</i> | <i>.....</i> | <i>Production of new research ideas</i> | <i>Other...</i> |  | <i>.....</i> |
| <i>Search, analysis and synthesis of data and information, with the use of the necessary technology</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <i>Project planning and management</i>                                                          |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
| <i>Adaptability to new situations</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <i>Respect for difference and multiculturalism</i>                                              |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
| <i>Decision-making</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <i>Respect for the natural environment</i>                                                      |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
| <i>Working independently</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <i>Showing social, professional and ethical responsibility and sensitivity to gender issues</i> |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
| <i>Team work</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <i>Criticism and self-criticism</i>                                                             |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
| <i>Working in an international environment</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <i>Production of free, creative and inductive thinking</i>                                      |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
| <i>Working in an interdisciplinary environment</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <i>.....</i>                                                                                    |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
| <i>Production of new research ideas</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <i>Other...</i>                                                                                 |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |
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| <ul style="list-style-type: none"> <li>• Search for, analysis and synthesis of data and information, with the use of the necessary technology.</li> <li>• Working independently.</li> <li>• Teamwork (through undergraduate-graduate collaborative breakout sessions).</li> <li>• Working in an international environment.</li> <li>• Production of free, creative and inductive thinking.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                 |                                                                                                         |                                        |                                       |                                                    |                        |                                            |                              |                                                                                                 |                  |                                     |                                                |                                                            |                                                    |              |                                         |                 |  |              |

### 3 COURSE SYLLABUS

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| <p>The course explores the ecological and evolutionary complexity of host-pathogen interactions across plants, animals, and ecosystems.</p> <ul style="list-style-type: none"> <li>• Foundations: Introduction to parasite/pathogen diversity and individual-level dynamics.</li> <li>• Core Concepts: Pathogen population dynamics, transmission modes, and virulence.</li> <li>• Disease Modeling: Basic reproductive ratio (<math>R_0</math>), SIR models, and frequency/density-dependent transmission.</li> <li>• Coevolution: Host-pathogen coevolutionary arms races and Red Queen dynamics.</li> <li>• Community Ecology: Multi-host/multi-pathogen interactions and the role of predation/competition.</li> <li>• Biodiversity and Disease: The Dilution Effect and the impact of host diversity on disease prevalence.</li> <li>• Environmental Drivers: Impact of contaminants, habitat fragmentation, and invasive species.</li> </ul> |
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- Global Change: Climate change effects, temperature-dependent infection, and seasonality.
- Conservation & Management: Pathogens in wildlife management and crop systems.

#### 4 TEACHING AND LEARNING METHODS - ASSESSMENT

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| <p><b>MODE OF TEACHING</b><br/><i>Face-to-face, distance learning, etc.</i></p> | <p>Distance Learning</p> <ul style="list-style-type: none"> <li>• Synchronous distance learning: 75% (39 hours)</li> <li>• Asynchronous distance learning: 25% (13 hours)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>MODE AND FREQUENCY OF COMMUNICATION WITH THE STUDENTS</b></p>             | <p>Weekly Synchronous Sessions: A 4-hour live lecture is held every week. These sessions allow for real-time interaction, clarification of complex concepts, and immediate feedback.</p> <p>LMS Announcements: Official course updates, reminders for weekly quizzes, and technical instructions are communicated at least twice a week through the "Announcements" tool of the Brightspace Learning Management System.</p> <p>Discussion Boards: Faculty and Teaching Assistants (TAs) monitor the course discussion forums daily (Monday–Friday). Students receive responses to their academic queries within 24–48 hours.</p> <p>Virtual Office Hours: Instructors hold weekly "Virtual Office Hours" by appointment, providing one-on-one academic advising and guidance, especially during the development of the final manuscript report.</p> <p>Feedback on Assignments: Detailed, individualized feedback is provided on all major assessments (Group Presentations, Manuscript Reports) within two weeks of submission. Automated feedback is provided immediately upon completion of the weekly online quizzes.</p> <p>Email Communication: For personal or administrative matters, students can contact the instructional team via university email, with a</p> |

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|                                                                                                                                                                                                          | guaranteed response time of 24 hours during the work week.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><b>ENSURING THE MODE OF COMMUNICATION AMONG STUDENTS</b></p> <p><i>Team assignments and discussions, collaborative learning platforms with the use of AI, video conference, QA sessions, κ.α.</i></p> | <p>Student interaction and peer-to-peer learning are central to the course design, particularly given its interdisciplinary and international nature:</p> <ul style="list-style-type: none"> <li>• Collaborative Breakout Sessions: Students participate in weekly synchronous breakout discussion sections. These sessions are designed to foster interaction between students, where they collaborate in real-time to analyze complex case studies and ecological modeling simulations.</li> <li>• Structured Peer Review: A key component of the communication strategy is the formal peer-review process integrated into the Final Project. Students are required to evaluate and provide constructive feedback on their classmates' ecological examination papers and informative pamphlets, simulating professional scientific discourse.</li> <li>• Collaborative Learning Platforms: The Brightspace Learning Management System (LMS) serves as the primary collaborative environment. Students utilize shared digital workspaces and communication tools to coordinate activities, share resources, and co-develop their "Disease in the News" summaries.</li> <li>• Integration of AI Tools: Students are encouraged to use AI tools as "collaborative partners" for brainstorming and refining the structure of their projects. This is allowed only with instructor permission and explicit disclosure, promoting a modern, technology-enhanced collaborative workflow.</li> <li>• Active Discussion Forums: Students interact asynchronously through moderated discussion boards dedicated to current events in disease ecology. This allows for an</li> </ul> |

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|                                                                                                                                                      | ongoing dialogue regarding the impact of pathogens on wildlife and ecosystems, strengthening the sense of a global academic community.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b><br><i>Use of ICT in teaching, in laboratory training, in the communication with students</i> | <p>The course extensively utilizes modern Information and Communication Technologies (ICT) to facilitate high-quality distance learning and training and communication with Students:</p> <ul style="list-style-type: none"> <li>• Learning Management System (LMS): Brightspace serves as the primary platform for all instructional content, hosting interactive PowerPoint modules with embedded video (mp4) and downloadable ecological datasets.</li> <li>• Synchronous Video Conferencing is used for real-time lectures and facilitated breakout sessions, which are essential for cooperative learning and the analysis of disease dynamics.</li> <li>• Multimedia Integration: Use of digital assets, such as "Disease in the News" video clips and virtual simulations, to bridge theoretical ecology with real-world health events.</li> <li>• Modeling Simulations: Students utilize digital tools and software-based worksheets for ecological modeling (e.g., calculating <math>R_0</math>, running SIR model simulations) to analyze and predict pathogen transmission.</li> <li>• Creative Digital Production: Students use graphic design and layout software (e.g., Canva, MS Publisher, or PowerPoint) to create professional-grade scientific infographics and pamphlets for their final projects.</li> <li>• Scientific Information Retrieval: Extensive use of online academic databases (PubMed, Web of Science, Google Scholar) and digital library resources for literature-intensive research and peer-review activities.</li> <li>• Digital Announcements &amp; Forums: Systematic use of Brightspace</li> </ul> |

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|                                             | <p>Announcements for administrative updates and moderated Discussion Boards for debating current topics in wildlife and ecosystem health.</p> <ul style="list-style-type: none"> <li>• Electronic Evaluation &amp; Feedback: All assessments (Exams, News Summaries, and Final Projects) are submitted through the LMS. Individualized qualitative feedback and grading are delivered electronically.</li> <li>• Virtual Office Hours: Use of synchronous video conferencing for one-on-one academic counseling and project guidance.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>TECHNOLOGICAL EQUIPMENT REQUIREMENTS</b> | <p>To successfully participate in this distance-learning course, students are required to have access to the following technological equipment and infrastructure:</p> <ul style="list-style-type: none"> <li>• Personal Computer / Laptop: A modern computer with sufficient processing power to run ecological modeling simulations and handle high-resolution multimedia content.</li> <li>• High-Speed Internet Connection: Reliable broadband access (DSL, Fiber, or equivalent) to support high-definition synchronous video conferencing and the streaming of interactive PowerPoint modules with embedded video.</li> <li>• Peripherals: A functional webcam and a high-quality microphone/headset to facilitate active participation in live Q&amp;A sessions and the delivery of group oral presentations.</li> </ul> <p>Software &amp; Tools:</p> <ul style="list-style-type: none"> <li>• LMS Access: Standard web browser (Chrome, Firefox, or Edge) for accessing the Brightspace platform.</li> <li>• Installation of the Zoom client or other approved teleconference platform for synchronous sessions.</li> <li>• Modeling &amp; Productivity Tools: Access to Microsoft Excel or specific web-based ecological modeling simulators.</li> <li>• Productivity Suite: Software for creating scientific reports and presentations (e.g., Microsoft Office, Google Workspace).</li> </ul> |

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|                                                          | <ul style="list-style-type: none"> <li>• Institutional Infrastructure: Students are provided with institutional accounts for the University's Learning Management System (LMS) and access to digital library resources for primary literature research.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>PLAGIARISM POLICY/<br/>PLAGIARISM DETECTION TOOLS</b> | <p>The program maintains a zero-tolerance policy towards academic dishonesty and plagiarism, ensuring that all submitted work reflects the student's original research and critical thinking.</p> <ul style="list-style-type: none"> <li>• Plagiarism Policy: Plagiarism is defined as using the words, ideas, results, or images of others without proper attribution, as well as self-plagiarism (resubmitting prior work).</li> <li>• Students are required to follow the Purdue Honor Pledge ("As a Boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. I will neither give nor receive aid unless the instructor authorizes it").</li> <li>• In alignment with the Agricultural University of Athens (AUA) regulations, all postgraduate assignments and the final thesis must comply with the institutional standards for originality.</li> </ul> <p>Plagiarism Detection Tools:</p> <ul style="list-style-type: none"> <li>• Turnitin: All written assignments (Manuscript Reports, Discussion Board posts, and the final Thesis) are systematically screened through the Turnitin plagiarism detection software.</li> <li>• Originality Reports: Instructors review detailed similarity reports generated by Turnitin to identify improperly cited content or excessive overlap with existing literature.</li> <li>• AI Writing Detection: The program utilizes Turnitin's AI writing detection feature to identify instances where generative AI tools may have been used outside the permitted guidelines.</li> </ul> |

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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <ul style="list-style-type: none"> <li>Consequences: Instances of academic dishonesty are handled according to the procedures of the Office of Student Rights and Responsibilities (OSRR) at Purdue and the Assembly of the Department of Biotechnology at AUA. Sanctions may range from failure of the assignment to dismissal from the dual-degree program.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |
| <b>ARTIFICIAL INTELLIGENCE POLICY</b><br><i>(1) The use of Artificial Intelligence is prohibited in all circumstances</i><br><i>(2) The use of Artificial Intelligence is allowed only with the permission of the instructor</i><br><i>(3) The use of Artificial Intelligence is allowed only with an explicit reference to the literature</i><br><i>(4) Students are free to use Artificial Intelligence</i>                                                                                                          | <p>(2) The use of Artificial Intelligence is allowed only with the permission of the instructor</p> <p>(3) The use of Artificial Intelligence is allowed only with an explicit reference to the literature</p> <p>Description &amp; Implementation:</p> <ul style="list-style-type: none"> <li>Permitted Use: AI tools may be used as aids for brainstorming project topics or for language polishing of the final project components.</li> <li>Mandatory Disclosure: Any use of AI must be explicitly declared in an "AI Usage Statement" within the student's final report.</li> <li>Prohibited Use: AI cannot be used to answer mid-term exam questions or to generate the primary analysis of ecological data/models. Students are responsible for the scientific accuracy of all submitted content.</li> </ul> |                          |
| <b>ORGANISATION OF TEACHING</b><br><i>The mode and methods of teaching are described in detail.</i><br><i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, work placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artworks, etc.</i><br><br><i>The student's study hours for each learning activity are stated, as well as the hours of independent study, according to the principles of the ECTS.</i> | <b>Activity</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Semester workload</b> |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Lectures (Synchronous distance learning - 3h/week)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 39                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Breakout Discussion Sections (Synchronous distance learning - 1h/week)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 13                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Independent study of pre-recorded modules & PPTs (Asynchronous)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 30                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Study and analysis of bibliography (Independent study)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 30                       |



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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Preparation of Final Project (Infographic, Paper, and Peer Review) | 23         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Course total</b>                                                | <b>150</b> |
| <p><b>STUDENT ASSESSMENT</b></p> <p><i>Description of the assessment method</i></p> <p><i>Language of assessment, methods of assessment, formative or summative assessment, multiple choice questions test, short answer questions, essay questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory assignment, clinical examination of patient, art interpretation, other</i></p> <p><i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                    |            |
| <p>Language of assessment: English</p> <p>The assessment is summative and is designed to test both theoretical understanding and the application of ecological models to real-world scenarios:</p> <ul style="list-style-type: none"> <li>• Three Mid-term Exams (60% total - 20% each): Focused on lecture content and required readings. Exams consist of short-answer and essay questions that evaluate critical thinking and data interpretation.</li> <li>• Disease in the News Summary (10%): A written assignment where students identify and summarize current news stories regarding infectious diseases in wild organisms, connecting them to ecological principles.</li> <li>• Short Assignments and Worksheets (10%): Practical exercises related to modeling simulations (e.g., SIR models, <math>R_0</math> calculations) and breakout session activities.</li> <li>• Final Project (20%): A multi-component assignment including an ecological examination paper and a professional informative pamphlet/infographic. This also includes a peer-review stage to evaluate classmates' work.</li> </ul> <p>Evaluation Criteria:</p> <ul style="list-style-type: none"> <li>• Specifically defined criteria: Detailed rubrics are used for the Final Project and News Summaries, focusing on scientific accuracy, clarity of presentation, and the ability to synthesize ecological theory.</li> <li>• Accessibility: All evaluation methods, exam schedules, and grading rubrics are explicitly detailed in the syllabus and accessible to students via the Brightspace LMS from the start of the course.</li> </ul> |                                                                    |            |

- Feedback: Students receive detailed qualitative feedback on their assignments and projects through the LMS. Exam results are accompanied by feedback to address common misconceptions.

## 5 RECOMMENDED BIBLIOGRAPHY

Because there is no textbook for this course, students will rely heavily on readings from the primary literature:

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