Fachlicher Wahlpflichtbereich

Wissensgebiet 1: "Natural Sciences Applied to the Use and Protection of Natural Resource Systems"

<table>
<tr><td colspan="4">FM 1: Biodiversity: Assessment, Function and Evolution Credits: 6</td></tr>
<tr><td colspan="4">Learning objectives:
The students
• have learned to apply different methodological approaches for assessing biodiversity,
• acquire skills to design and assess monitoring programmes and test hypotheses rigorously and cost-effectively,
• got insights into modern taxonomy to understand evolutionary scenarios and relationships among and between taxa,
• have learned to apply to the results to nature conservation strategies and management systems for sustainable use of natural resources and
• know how to establish, develop, maintain, and redistribute information in biological reference and research collections.</td></tr>
<tr><td colspan="4">Preconditions: none</td></tr>
<tr><td>Teaching formats</td><td>Hours per week, workload in hours</td><td>Credits and preconditions for granting</td><td>Topics, contents</td></tr>
<tr><td>L</td><td>2 SWS
30 hours
25 hours presence in class,
5 hours preparation and learning</td><td>1 credit, participation</td><td>• History of biodiversity research
• Introduction to phylogeny and ecology
• Generation of hypotheses – designing and need for adaptation of monitoring programs to obtain relevant data for nature
• Conservation and sustainable development
• Methods in taxonomy, comparative morphology and ecophysiology
• Purpose of collections: introduction, definition of collections, ethics, operational planning</td></tr>
<tr><td>SE</td><td>1 SWS
30 hours
15 hours presence in class,
15 hours preparation and learning</td><td>1 credit, participation</td><td>Deepening lecture contents by study of original literature: presentations and discussions of selected aspects with emphasis on applied biodiversity research, ecology and nature conservation</td></tr>
<tr><td>E</td><td>1 SWS
60 hours
15 hours presence in class,
45 hours preparation and learning</td><td>2 credits, participation</td><td>• Takes place at the research station 'Linde', Brandenburg state, and in the laboratory
• Methods to assess patterns of vertebrate and invertebrate diversity and ecology (e.g. field-observations, capture-mark-recapture, radio telemetry, bio-acoustic methods, camera trapping)</td></tr>
<tr><td>FT</td><td>30 hours</td><td>1 credit, participation</td><td>Visit to field sites and/or Berlin Zoo & Tierpark Berlin-Friedrichsfelde</td></tr>
<tr><td>Final exam</td><td>30 hours
Written exam, 90 minutes, and preparation</td><td>1 credit, pass</td><td></td></tr>
<tr><td>Duration</td><td colspan="3">☒ 1 semester ☐ 2 semesters</td></tr>
<tr><td>Start of module</td><td colspan="3">☐ winter semester ☒ summer semester</td></tr>
</table>