### Contents

Timing matters: Temporal organisation in the animal kingdom. Timing plays an important role in all living systems. Animals make use of endogenous clocks to predict and adapt to daily or seasonal changes in environmental parameters. To be at the right place at the right time is of great fitness relevance if, for example, a mating partner or enough food has to be found. Many mutualistic, antagonistic or social interactions can only take place if animals are at the same place at the same time and in the appropriate developmental stage. The lecture gives an introduction to the mechanisms underlying the temporal organisation in the animal kingdom. Adopting an integrative approach, the lecture goes from timing mechanisms on the neuronal level to individual behaviour and then to interactions in social groups, populations or partners in complex and variable ecosystems.

### Intended learning outcomes

Students get to know the advantages of an integrative approach when analysing complex biological systems. They learn to relate and integrate different fields within biology. In the seminar, students practise the discussion of research findings.

### Courses

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<th>Type</th>
<th>Number of weekly contact hours</th>
<th>Language — if other than German</th>
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<td>English</td>
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Module taught in: English

### Method of assessment

Students will be informed about the method, length and scope of the assessment prior to the course. Usually, one of the following options will be chosen: a) written examination (30 to 60 minutes, including multiple choice questions) or b) oral examination of one candidate each (30 to 60 minutes) or c) oral examination in groups of up to 3 candidates (30 to 60 minutes)

Language of assessment: German and/or English

### Allocation of places

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### Additional information

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### Referred to in LPO I

(examination regulations for teaching-degree programmes)

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### Module appears in

- Master's degree (1 major) Biology (2015)
- Master's degree (1 major) FOKUS Life Science (2015)
- Master's degree (1 major) Biosciences (2016)
- Master's teaching degree Gymnasium MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
- Supplementary course MINT Teacher Education PLUS, Elite Network Bavaria (ENB) (2016)
- Master's degree (1 major) Biosciences (2017)
- Master's degree (1 major) Biosciences (2018)