### Study plan Master Biology 2022

#### Compulsory area 54 ECTS

- **Biology in Ulm: Stress response and resilience of biological systems** (lecture, 3 ECTS)

#### Advanced skills in life sciences

- (lectures, 9 ECTS)
  - Data Analysis/Management & Project Design/Scientific integrity in Bioscience (3 ECTS)
  - Molecular Biology/Biotechnology (3 ECTS)
  - Philosophy of Science (3 ECTS)

#### Advanced methods in Biology

- (practical course and seminar, 12 ECTS)

#### Master Thesis 30 ECTS

### Compulsory elective area min. 57 ECTS

#### Research focus Biology:

- choose 2 modules (min. 30 ECTS)

  - Molecular biology of Archaea
  - Applied Microbiology
  - Cell biology / genetics
  - Endocrinology
  - Conservation Genomics
  - Applied Molecular Ecology and Evolution
  - Neurobiology & Behaviour
  - Chemical Ecology
  - Adaptation and diversity in tropical ecosystems
  - Tropical Ecology in Costa Rica
  - Functional morphology
  - (Molecular plant biology)
  - (Botany)

#### Advanced topics in biological resilience (min. 9 ECTS)

Select lectures and courses in biology not yet attended.

- Endocrinology
- Adaptation and diversity in tropical ecosystems
- Conservation genomics
- Applied Mol. Ecology and Evolution
- Mol. biology of Archaea
- Neurobiology & Behaviour
- Molecular cell biology
- Chemical ecology
- ...

#### Biology in praxis (min. 3 ECTS)

- Excursion
- Career field exploration

### Research focus Medicine: choose 1 module (min. 15 ECTS)

- Human genetics
- Virology
- Pharmacology/Toxicology
- Clinical Neuroscience

### Complementary area min. 9 ECTS

Elective courses from the modules offered at Ulm University

---

**Total ECTS:** 120