Course Title:	**Advanced Environmental Microbiology**
Course Code:	**MICR800**
Descriptor Start Date:	**01/01/2025**
Descriptor End Date:	**31/12/2025**
POINTS:	**30.00**
LEVEL:	**8**
PREREQUISITE/S:	
COREQUISITE/S:	
RESTRICTION/S:	

LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

Total learning hours: 300

PRESCRIPTOR

Advances knowledge and skills in understanding the role of microorganisms in a range of environments. Explores the network of microbial communities in organisms, soil, water, and air, and how natural or anthropogenic driven changes in the environment impact microbial life that can affect biological processes. Investigates cutting-edge approaches for studying microbial communities at species and community levels.

LEARNING OUTCOMES

1. Synthesise microbiological concepts.
2. Evaluate advanced approaches to studying microorganisms in a range of environments.
3. Critically assess the diverse applications of microorganisms in addressing environmental problems.

CONTENT

- Microbial diversity
- Role of microorganisms in different environments
- Ecological concepts involving microbial communities and ecosystems.
- New trends in studying microbial life in the environment

LEARNING & TEACHING STRATEGIES

The course delivery will include lectures, student-led seminars, online forums, online tools and discussions supplemented by self-directed study. Refer to your timetable and Canvas for detailed information.

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Written Assessment	40.00	LO1, LO2, LO3
Portfolio	60.00	LO1, LO2, LO3

Grade Map **MAP1**

A+ A A- Pass with Distinction
B+ B B- Pass with Merit
C+ C C- Pass
D Fail

Overall requirement/s to pass the course:

Achievement of a minimum overall grade of C- is required to pass this course.

LEARNING RESOURCES

Additional readings and resources are provided in class and on Canvas.

For further information, contact: Te Ara Hauora A Putaiao - Faculty of Health & Environmental Science

Principal Programme: **AK2037, Master of Science**

Related Programme/s:

Disclaimer: Course descriptors may be amended between teaching periods/semesters