Course Title:	**Architectural Ecologies III: Climate-responsive Design**
Course Code:	**ARCH603**
Descriptor Start Date:	**01/01/2026**

POINTS:	**15.00**
LEVEL:	**6**
PREREQUISITE/S:	**ARCH504**
COREQUISITE/S:	**ARCH700**
RESTRICTION/S:	**None**

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: 150

PRESCRIPTOR

Principles and applications of regenerative and sustainable design, including Te Aranga principles, building environmental performance strategies and human comfort are examined. Introduces basic scientific principles of heating/cooling, lighting, acoustics, building envelope detailing, operational energy and carbon emissions. Strategies for passive design, microclimate enhancement and climate-responsive architecture are explored.

LEARNING OUTCOMES

1. Apply key course themes in relation to your architectural project.
2. Creatively and iteratively develop knowledge of construction technologies, structural principles, regulatory frameworks and/or design delivery systems in relation to key wānanga themes.
3. The resolved outcomes show the development of appropriate ecological systems for a design project.
4. Develop skills in communicating technical and ecological solutions to a design project via drawings, digital models and technical reports.

CONTENT

Climate and context; site ecologies; principles of heating, cooling, ventilation, insulation, shading; natural and mechanical systems; construction systems, materials; building envelope; indoor environmental quality; sustainability at building and urban scales; life-cycle; environmental rating systems.

LEARNING & TEACHING STRATEGIES

Seminars, tutorials, precedents and case studies. Site and community visits. Learning-by-doing, reflection and peer to peer learning. Individual and team-based student presentations and critiques. Guest tutors. Practitioners, and community partner inputs, briefs and consultation.and community partner inputs, briefs and consultation.

ASSESSMENT PLAN

Assessment Event	Weighting %	Learning Outcomes
Case Study Report(collaborative)	40.00	1, 2, 4
Integrated Wānanga Pin-up and Report (individual)	60.00	1, 2, 3, 4

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:

To pass the course, a student must submit all assessments and achieve a minimum overall grade of C-

LEARNING RESOURCES

Required readings will depend on the nature of the projects each semester and will be detailed in the course material.

For further information, contact: Te Ara Auaha - Faculty of Design & Creative Technologies

Principal Programme: **AK1337, Bachelor of Architecture and Future Environments**

Related Programme/s: **AK1347**
ICE1
INEXCH1
SABRD1