NURS 7089 PLANETARY HEALTH AND ENVIRONMENTAL DESIGN

Credit Points 10

Coordinator Leena Kesava Panicker (https://directory.westernsydney.edu.au/search/name/Leena Kesava Panicker/)

Description This subject provides an in-depth exploration of the key principles linking planetary health and environmental design, with a particular focus on healthcare design, aged care, and biophilic design for well-being in urban settings. It addresses how urban planning, architecture, and landscape design can promote human well-being while safeguarding ecological integrity. Students will critically assess the role of the built environment in impacting both human and ecosystem health and learn to develop strategies for sustainable, resilient, and health-promoting spaces.The subject combines theoretical understanding with applied practice, fostering a systems-thinking approach that integrates insights from urban design, architecture, public health, and ecological sustainability.

School Nursing & Midwifery

Discipline Aged Care Nursing

Student Contribution Band HECS Band 1 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 7 subject

Restrictions

Students must be enrolled in a postgraduate program in the School of Nursing and Midwifery.

Learning Outcomes

After successful completion of this subject, students will be able to:

1. Reflect on the relationship between planetary health, environmental design, and healthcare environments.
2. Detect key concepts of ecological urbanism, green infrastructure, sustainable development, biophilic design, and biomimicry, particularly in the context of healthcare and aged care.
3. Analyse the impact of the built environment on both human health and ecosystem function, with a focus on healthcare settings.
4. Design strategies that integrate ecological principles, biophilic elements, and biomimicry into urban planning, healthcare, and aged care design.
5. Develop practical skills in designing health-promoting, sustainable environments that enhance community resilience and ecological integrity.
6. Demonstrate a comprehensive understanding of conceptual and theoretical frameworks in ageing, including age-friendly approaches from a multidisciplinary perspective in health, physical infrastructures, liveable spaces, technology, and social paradigms.
7. Demonstrate a coherent understanding of diversity and inclusivity within aged communities and their unique attributes and needs across a diverse set of contexts, including global, national, local, and the context of Aboriginal and Torres Strait Islander peoples.

Subject Content

- Introduction to Planetary Health and Environmental Design
  - Overview of planetary health: Linking human well-being with ecological systems.
  - The role of the built environment in promoting or degrading planetary health.
  - Historical perspectives on environmental design and health.
- Ecological Urbanism and Sustainable Development
  - Ecological urbanism as a framework for sustainable cities.
  - Sustainable development goals (SDGs) and their connection to environmental design.
  - Concepts of regenerative and circular design for healthy ecosystems.
- Biophilic Design and Well-Being
  - Principles of biophilic design: Understanding human connections to nature.
  - The role of biophilic elements in promoting mental and physical health.
  - Integrating biophilic design into healthcare and aged care environments for improved outcomes, including enhancing staff wellbeing and safety. This involves creating restorative environments that reduce stress, improve job satisfaction, and promote physical health, thereby supporting both consumers and healthcare staff.
- Health-Promoting Environments
  - Exploring biophilic design principles in healthcare and aged care.
  - The role of green spaces, nature, and biodiversity in promoting mental and physical health.
  - Health risks associated with poorly designed healthcare environments (e.g., infection control, stress).
- Healthcare Design and Aged Care
  - Principles of designing health-promoting healthcare facilities and aged care environments.
  - Understanding the needs of ageing populations in environmental design.
  - Innovations in healthcare design for improved consumer outcomes and staff well-being.
- Green Infrastructure and Ecosystem Services
  - Principles and types of green infrastructure (e.g., green roofs, urban forests, wetlands).
  - Understanding ecosystem services and their integration into urban planning.
  - Climate resilience through nature-based solutions in healthcare settings.
- Community Resilience and Social Equity in Design
  - Designing for community health and social equity.
  - Strategies to build resilience to climate change, natural disasters, and public health crises.
  - Inclusive design: Addressing the needs of vulnerable populations.
- Applied Design Practices and Tools
  - Tools and methods for integrating health, biophilic design, biomimicry, and sustainability into design projects.
  - Design thinking for planetary health: From concept to implementation.
  - Workshops on developing sustainable design interventions for healthcare and aged care.
- Case Studies and Best Practices
  - Global case studies on ecological urbanism, healthcare design, aged care environments, biophilic design, and biomimicry.

- Lessons learned from cities and regions implementing green infrastructure and sustainable design.
  - Evaluating outcomes: Human health, ecological benefits, and social impacts in healthcare contexts.
- Theoretical Frameworks in Ageing and Age-Friendly Approaches
  - Theories of ageing: Biological, psychosocial, and environmental gerontology.
  - WHO Age-Friendly Cities Framework and universal design principles.
  - Liveable communities and their support for ageing in place.
- Integration of Technology and Social Paradigms in Ageing
  - Assistive technologies and telehealth for older adults.
  - Digital inclusion and training programs for older adults.
  - Social inclusion, cultural competence, and policy advocacy for age-friendly environments.
- Biomimicry in Environmental Design
  - Principles of biomimicry: Learning from nature's designs and processes.
  - Applications of biomimicry in urban planning, architecture, and healthcare design.
  - Case studies showcasing successful biomimicry projects and their impact on sustainability and health.

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NURS7089_25-AUT_ON_2#subjects)

Special Requirements

Essential equipment

Access to an internet enabled device is essential in order to be able to: access program materials; to participate in discussion groups; and to access additional resources provided by the lecturer during the term.

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Applied Project	1,500 words plus Design (hand-drawn, coloured or computer generated)	40	N	Individual	N
Case Study	1,500 words	40	N	Individual	N
Reflection	500 word reflection and response	20	N	Individual	N

Teaching Periods

Autumn (2025)

Online
Online
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