WESTERN SYDNEY
UNIVERSITY

INHERENT REQUIREMENTS FOR SCIENCE DEGREES

Introduction

Western Sydney University and the School of Science (SoSC) strongly support the right of all people to pursue a Science degree.

Inherent requirements are the essential components of a course or unit that demonstrate the abilities, knowledge and skills needed to achieve the core learning outcomes of the course or unit, while preserving the academic integrity of the University's learning, assessment and accreditation processes. The inherent requirements are the abilities, knowledge and skills needed to complete the course that must be met by all students.

Students with a disability or chronic health condition may be able to have reasonable adjustments made to enable them to meet these requirements.

The School is committed to making reasonable adjustments to teaching and learning, assessment, professional practice and other activities to enable students to participate in their course. Reasonable adjustments must not fundamentally change the nature of the inherent requirement.

Throughout their chosen course of study, students may be exposed to situations which may include mixed gender, religious and culturally diverse environments. Further information regarding specific activities within individual courses can be found in the University handbook or by contacting the corresponding Director of Academic Program.

Relevant registration/admission requirements into Royal Australian Chemical Institute (RACI) may be sought from appropriate regulatory/accreditation bodies upon successful completion of the associated course. Further information on accreditation for individual courses can be found in the University Handbook or by contacting the corresponding Director of Academic Program.

To support prospective and current students' decision making, a series of inherent requirement statements have been developed. These statements specify the essential skills, knowledge and abilities required for Science, Medical Science, and Natural Science degrees. Students should use this information to make informed decisions about their chosen course of study. The statements are clustered under 8 domains consisting of ethical behaviour, behavioural stability, legal, communication, cognition, sensory abilities, strength and mobility and ICT.

The inherent requirements outlined below provide a guide to inform decision making for students and staff.

How to read the inherent requirement statements?

If you are intending to enrol in a Science, Medical Science or Natural Science course in the School of the Science (SoSC), you should look at these inherent requirement statements and think about whether you may experience challenges in meeting these requirements.

If you think you may experience challenges for any reason including a disability or chronic health condition, you should discuss your concerns with the SoSC staff, such as the Director of Academic Program, Academic Course Advisor, School Disability Coordinator or campus Disability Advisor. These staff can work collaboratively with you to determine reasonable adjustments to assist you to meet the inherent requirements. In the case where it is determined that inherent requirements cannot be met with reasonable adjustments, the University staff can provide guidance regarding other study options.

These inherent requirements should be read in conjunction with your chosen course of study's information.

The inherent requirements are made up of the following five components:

- Level 1 - introduction to the inherent requirement
- Level 2 - description of the inherent requirement
- Level 3 - explanation of why this is an inherent requirement of the course
- Level 4 - the nature of any adjustments that may be made to allow you to meet the requirement
- Level 5 - examples of tasks you must be able to do to show you've met the requirement. The exemplars provided are not intended as an exhaustive list.

Inherent requirement domains

There are 8 domains of inherent requirements in the Science, Medical Science, and Natural Science degrees . Some domains have a number of sub-domains.

- Ethical behavior
- Behavioural stability
- Legal
- Communication
- Cognition
- Sensory ability
- Strength and Mobility
- Sustainable performance

Ethical Behaviour

Level	Inherent requirement statements
1	Students must be able to demonstrate their ability to meet all relevant standards and codes of ethics applicable to their chosen profession.
2	Student demonstrates knowledge of, and engages in, ethical behaviour.
3	Justification of inherent requirement: ○ Compliance with the relevant codes of conduct and professional standards facilitates safe, competent interactions and relationships for students and/or the people with whom they engage. This supports the physical, psychological, emotional and spiritual well-being of all.
4	Adjustments must ensure the codes and standards are not compromised or result in unethical behaviour. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: ○ Demonstrating appropriate behaviour in all contexts, including academic, laboratory, field work, and/or work placements. ○ Demonstrates understanding of confidentiality, discretion and sensitivity. ○ Complying with Western Sydney University Human & Animal ethics, biosafety policies.

Behavioural Stability

Level	Inherent requirement statements
1	Behavioural stability is required to function and adapt effectively and sensitively in a program of study in the Sciences.
2	Student demonstrates behavioural stability to work constructively in a diverse and changing academic and clinical environment, which may at times be challenging and unpredictable.
3	Justification of inherent requirement: ○ Students may be exposed to situations which are challenging and unpredictable and will be required to have behavioural stability to manage these events. ○ Students will be required to deal with challenging timelines and ambiguously defined problems.
4	Adjustments must support stable, effective and professional behaviour in both academic and clinical settings. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: ○ Being receptive and responding appropriately to constructive feedback. ○ Coping with own emotions & behaviour effectively when dealing with individuals in the work place setting. ○ Appropriate behaviour to exposure to post-mortem tissue. ○ Take responsibility for their own learning, including appropriate time management and prioritization of multiple, competing takes with specific deadlines.

Legal

Level	Inherent requirement statements
1	Student to comply with Australian Law, professional regulations &/or practices as relevant to specific scientific discipline.
2	Student demonstrates knowledge and ability to execute required compliance with required regulations.
3	Justification of inherent requirement: o Knowledge, understanding, and compliance with Australian Law and professional regulations facilitates effective, professional, responsible and accountable scientist and are necessary in order to reduce the risk of harm to self and others.
4	Adjustments specific to the individual can be discussed with the campus Disability Advisor. Adjustments must be consistent with legislative and regulatory requirements.
5	Exemplars: o Complying with policies for field work to ensure student and staff safety. o Compliance with relevant WHS regulations/legislations and course requirement (e.g. police criminal/child safety checks) policies. o Registration with appropriate regulatory bodies (Forensic Mortuary Practice).

Communication

This course requires effective, verbal, non-verbal and written communication skills.

Verbal

Level	Inherent requirement statements
1	Communicate effectively and clearly in English to a standard that allows scholarly and professional-level messages and text with language use and style appropriate to particular audiences.
2	Student demonstrates: o The ability to understand and respond to verbal communication accurately, appropriately and in a timely manner. o The ability to provide clear instructions in the context of the situation. o Timely clear feedback and reporting orally.
3	Justification of inherent requirement: o These skills are essential to develop and maintain trusting relationships and to perform effectively in academic and professional environments. o The ability to problem solve and communicate knowledge and understanding of relevant subject materials effectively to others.
4	Adjustments for verbal communication must address effectiveness, timeliness, clarity and accuracy issues to ensure safety of the student and peers/Supervisors. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: o Actively participating in tutorials, laboratory and field discussions. o Oral presentations to meet academic or professional standards. o Responding to requests for scientific information or support in the professional environment. o Respectful communication with a diverse group of people with respect to: gender, sexuality, age, culture, religious, educational and socio-economic background in academic or workplace settings. o Conveying spoken information accurately and effectively in academic or workplace / placement settings.

Non-verbal

Level	Inherent requirement statements
1	Internally formulate and assess conceptual meaning from nonverbal (body language or behavioural cues) using knowledge of language, background knowledge and critical thinking to respond in an appropriate manner.
2	Student demonstrates: o The capacity to recognise, interpret and respond appropriately to non-verbal or behavioural cues. o Awareness of own & others behaviour.
3	Justification of inherent requirement: o These skills are an essential requirement to develop and maintain relationships and to perform effectively in academic and professional settings. o To be able to problem solve and communicate with others using appropriate methods o Being sensitive to individual differences displays respect and empathy to others and develops trust.
4	Adjustments for non-verbal communication must address effectiveness, timeliness, clarity and accuracy issues to ensure safety of the student and peers/Supervisors. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: o Recognising and responding appropriately to nonverbal cues in academic or professional environments. o Read, comprehend and discuss information in a variety of formats e.g. results, data presentation or medical images. o Create & develop rapport with academics, student peers, professional staff to ensure effective working relationships.

Written

Level	Inherent requirement statements
1	Communicate effectively and clearly in written English to a standard that allows scholarly and professional-level messages and text with language use and style appropriate to particular audiences.
2	Student demonstrates: o Capacity to construct coherent written communication appropriate to the circumstances. o Capacity to recognise, interpret and respond appropriately to written instructions.
3	Justification of inherent requirement: o Construction of written tasks appropriate to the relevant work place audience are required to convey knowledge and understanding of relevant subject matter. o Accurate written communication, including record-keeping or lab notes, is vital to meet academic or work place. o Inaccurate records may have legal and professional consequences
4	Adjustments for written communication must address effectiveness, timeliness, clarity and accuracy issues to ensure safety of the student and peers/Supervisors. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: o Respond appropriately to requests for scientific information or support in the professional environment o Prepare autopsy reports for mortuary or other profession bodies to the appropriate academic or legal standards

Cognitive skills

Knowledge and cognitive skills

Level	Inherent requirement statements
1	Student must be able to acquire knowledge, process, analyze, synthesis and critically evaluate information. Apply discipline knowledge to meet the academic standards or thresholds for learning outcomes relevant to the academic course or profession. Demonstrates appropriate cognitive skills including memory recall, focus and attention to detail.
2	Student demonstrates: ○ Capacity to identify and retrieve appropriate and relevant information. ○ Ability to interpret, apply and implement knowledge in practical situations. ○ Capacity to understand academic conventions to construct appropriate responses.
3	Justification of inherent requirement: ○ Cognitive skills are essential in the acquisition, application and delivery of knowledge in academic and professional environments.
4	Adjustments must ensure that a clear demonstration of cognitive, skills are not compromised or impeded. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: ○ Appropriately applying knowledge of policy and procedures in workplace settings. ○ Ability to conceptualise and use appropriate knowledge in response to academic assessment items. ○ Ability to interpret, comprehend or decode and apply information from multiple sources.

Literacy (language)

Level	Inherent requirement statements
1	Competent literacy and language skills are required to provide information to meet the academic standards or thresholds for learning outcomes relevant to the academic course or profession.
2	Student demonstrates: ○ The ability to accurately acquire information and convey appropriate, effective messages. ○ Ability to read and comprehend a range of literature and information. ○ The capacity to understand and implement academic conventions to construct written text in a scholarly manner.
3	Justification of inherent requirement: ○ Appropriate literacy skills are essential in the acquisition, application and delivery of knowledge in academic and professional environments. ○ The ability to read, interpret and respond to multiple sources of information is important to performance in academic or workplace environments.
4	Adjustments must ensure that a clear demonstration of knowledge, cognitive, numeracy or literacy skills are not compromised or impeded. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: ○ Demonstrating accurate recordings of data on charts or graphs. ○ Conveying spoken information accurately and effectively in academic or workplace settings. ○ Summarising and referencing of information in accordance with appropriate academic conventions in written assignments. ○ Production of accurate, clear and concise documentation which meets legal requirements.

Numeracy

Level	Inherent requirement statements
1	Competent and accurate numeracy skills are essential to meet the academic standards or thresholds for learning outcomes relevant to the academic course or profession.
2	Student demonstrates: o Ability to use numeracy skills when applying to equations or calculations associated with scientific disciplines. o Interprets and correctly applies data, measurements and numerical criteria.
3	Justification of inherent requirement: o Cognitive, numeracy and literacy skills are essential in the acquisition, application and delivery of knowledge in academic and professional environments.
4	Adjustments must ensure that a clear demonstration of numeracy skills are not compromised or impeded. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: o Performing accurate drug, statistical or equation calculations. o Demonstrating accurate recordings of data on charts or graphs.

Sensory ability

Visual

Level	Inherent requirement statements
1	Adequate visual acuity is required to complete theoretical scientific or professional tasks in a range of settings (labs, classrooms, field studies, workplace).
2	Student demonstrates: o Adequate visual acuity to perform the required range of skills and assessments.
3	Justification of inherent requirement: o Adequate visual acuity is fundamental to the safe care of the self and others. o Scientific practise requires visual acuity in order to demonstrate the required range of science inquiry skills: problem solving and to apply theory to practice in applied settings in a safe and effective way.
4	Any strategies to address the effects of vision impairment must be effective, consistent and not compromise patient treatment or safety. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: o Accurately measure solutions, compounds or other materials for use in experimental situations as required in scientific or professional situations. o Observe subtle surface features in post mortem tissue. o Ability to function in artificial light conditions e.g. enclosed anatomy labs or forensic mortuary facilities.

Auditory

Level	Inherent requirement statements
1	Auditory ability is required to complete theoretical scientific or professional tasks in a range of settings (labs, classrooms, field studies, workplace).
2	Student demonstrates sufficient aural function to undertake the required range of skills

3	Justification of inherent requirement: ○ Sufficient auditory ability is required for the safe care of the self and others ○ Scientific practise requires auditory acuity in order to demonstrate the required range of science inquiry skills: problem solving and to apply theory to practice in applied settings in a safe and effective way
4	Any strategies to address the effects of hearing impairment must be effective, consistent and not compromise patient treatment or safety. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: ○ Responding to verbal instruction Identification of animals (e.g. bird species) or objects (e.g. phones) based on sound alone ○

Tactile

Level	Inherent requirement statements
1	Sufficient tactile acuity is required to complete scientific or professional tasks in a range of settings (labs, classrooms, field studies, workplace).
2	Student demonstrates sufficient tactile acuity to perform the required range of skills and practical assessments
3	Justification of inherent requirement: ○ Tactile assessment is fundamental to the safe operation of some equipment ○ Sufficient tactile ability is necessary to monitor and detect physical characteristics of human or animal species and to detect potential abnormalities
4	Any strategies to address the effects of tactile impairment must be effective, consistent and not compromise patient treatment or safety. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: ○ Physical examination of autopsy material and detecting anatomical abnormalities ○ Conduct classroom, lab or field-based tasks in a way that utilizes available resources, equipment or personnel

Strength and motor skills

Fine motor

Level	Inherent requirement statements
1	Fine motor skills and coordination to function in the classroom, laboratories, or field studies as required within the scope of the science degree or profession.
2	Student demonstrates ability to perform tasks that require fine motor skills to function within scope of practice in a safe way
3	Justification of inherent requirement: ○ Labs, and field trips require fine motor control in order to undertake scientific tasks in a safe and effective manner ○ Students must be able to demonstrate and perform these tasks consistently and safely to reduce the risk of harm to self and others
4	Adjustments must allow demonstration of functional effectiveness, safety of self and others and a capacity to provide appropriate care to patients. Adjustments specific to the individual can be discussed with the campus Disability Advisor.

5	Exemplars: ○ Demonstrate the manual dexterity required for tasks associated with use of surgical instruments ○ Fine manipulation and coordination of apparatus associated with scientific experiments or workplace machinery.

Gross motor

Level	Inherent requirement statements
1	Gross motor skills and coordination to function in the classroom, laboratories, or field studies as required within the scope of the science degree or profession.
2	Student demonstrates ability to perform motor skills to function within scope of practice in a safe way
3	Justification of inherent requirement: ○ Labs, and field trips require gross motor control in order to undertake scientific tasks in a safe and effective manner ○ Persons are physically able to conduct and participate in the above tasks in a way that minimises risk of harm to self or others (e.g. lifting equipment)
4	Adjustments must allow demonstration of functional effectiveness, safety of self and others and a capacity to provide appropriate care to patients. Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: ○ Mortuary practice practical and clinical placements involve manual handling requirements such as lifting, pushing, pulling of equipment and bodies, standing, twisting and bending. ○ Moving between a range of indoor and outdoor learning spaces ○ Ability to use a range of equipment or resources in a range of settings (labs, classrooms, field work) in a safe manner.

Sustainable performance

Level	Inherent requirement statements
1	Study in the area of Science, Medical Science, and Natural Science courses requires both physical and mental performance at a consistent and sustained level to meet individual needs over time.
2	Student demonstrates ○ Consistent and sustained level of physical energy to complete a specific task in a timely manner and over time ○ The ability to perform repetitive activities with a level of concentration that ensures a capacity to focus on the activity until it is completed appropriately ○ The capacity to maintain consistency and quality of performance throughout the designated period of duty
3	Justification of inherent requirement: ○ Sufficient physical and mental endurance is an essential requirement needed to perform multiple tasks in an assigned period to provide safe and effective care
4	Adjustments must ensure that performance is consistent and sustained over a given period Adjustments specific to the individual can be discussed with the campus Disability Advisor.
5	Exemplars: ○ Participating in tutorials, lectures, meetings or practical components throughout the day ○ Clinical placements in Mortuary practice require prolonged periods of standing (>3 hours)

WESTERN SYDNEY UNIVERSITY
Locked Bag 1797
Penrith South NSW
2751 Australia
ABN 53 014 069 881 CRICOS
Provider No 00917K

inherentrequirements@westernsydney.edu.au
westernsydney.edu.au/ir