Inherent Requirements Statement

Medical, Biomedical & Biotechnology Sciences

Inherent Requirements Statement for the Bachelor of Advanced Science, Bachelor of Medical Science, Bachelor of Biomedical Science, Bachelor of Biotechnology, Masters of Science, Masters of Medical Biotechnology, Masters of Biomedical Engineering, and Bachelor of Science with majors in Medical Science, Biomedical Science and Biotechnology.

UTS strongly supports the right of all people who wish to undertake a course at our university to pursue their goals and achieve their personal potential. We welcome prospective students with disabilities, and students from diverse social, economic and cultural backgrounds.

Inherent Requirements are academic and non-academic requirements that are inherent in or essential to the successful completion of a course. By identifying and effectively communicating the Inherent Requirements of our courses, UTS aims to assist prospective and current students to make informed decisions about their study, and to facilitate productive and transparent discussions about career choices.

What does this mean for prospective and current students?

Prospective and current students should carefully read this Inherent Requirement Statement, and consider whether they might experience challenges in successfully completing their preferred or chosen course. This Statement should be read in conjunction with the UTS Student Rules.

If you are a prospective or current student and are concerned about your ability to meet these Inherent Requirements, you should discuss your concerns with the Academic Liaison Officer in your faculty or school and/or UTS Accessibility Service on 9514 1177 or at accessibility@uts.edu.au.

Please note that UTS also requires students to comply with the UTS Student Charter and relevant University policies, procedures and regulations.

In addition, students who enrol in professional degrees are required to comply with legal requirements relating to accreditation and registration.

Reasonable adjustments

UTS will make reasonable adjustments to teaching and learning, assessment, professional experiences, course related work experience and other course activities to facilitate maximum participation by students with disabilities, carer responsibilities, and religious or cultural obligations in their courses.

When making adjustments for students, UTS will continue to ensure the integrity of its courses and assessment requirements and processes, so that the students on whom it confers an award can present themselves as having the appropriate knowledge, experience and expertise implicit in the holding of that award. The purpose of reasonable adjustments is to assist, where feasible, students to meet the Inherent Requirements of a course, not to replace or override them.

Registration with the UTS Accessibility Service is necessary for students to obtain reasonable adjustments for their disability. Students are not otherwise required to disclose their disability or other personal circumstances to UTS, unless they pose a risk to their health or safety, or to that of others. Students should familiarise themselves with relevant deadlines and allow sufficient time for reasonable adjustments to be made.

Requirement area	Description of the Inherent Requirement	Examples in the academic environment	Examples in the professional experience environment
1. Legal and Behavioural Requirements	Student engages in appropriate behaviour, having regard to their legal and ethical obligations under the law, professional regulations and codes of conduct. Student demonstrates behaviour that allows them to work constructively in a diverse and changing academic and practice environment. Student demonstrates knowledge of, and engages in, ethical behaviour. Student demonstrates self-awareness and ensures that their own opinions, attitudes and behaviours do not adversely affect others.	Is receptive and responds appropriately to constructive feedback. Participates in tutorials, lectures and clinical placements in a collegial manner. Actively and appropriately participates in collaborative tasks and group work. Maintains respectful communication practices in times of increased stressors or workloads. Complies with relevant health and safety policies for equipment use and storage in practical laboratories. Complies with infection control procedures, including the use of personal protective equipment. Acknowledges and adheres to a respect for each individual's personal space.	Complies with NSW Health, or equivalent, work placement requirements, including first aid and CPR knowledge and competencies. Complies with relevant child protection, health and safety and anti-discrimination legislation. Works effectively and respectfully within teams of people with varied personal, cultural, religious socio-economic and professional backgrounds and clinical opinions, to facilitate effective practice decisions. Is receptive and responds appropriately to constructive feedback provided by colleagues and supervisors. Copes with own emotions and behaviour effectively when dealing with multiple and/or changing demands in the practice setting, including working with pathological agents, human and animal products. human and animal products Adjusts to changing circumstances in a way that allows self-care while maintaining a professional-level focus on practice needs.

Requirement area	Description of the Inherent Requirement	Examples in the academic environment	Examples in the professional experience environment
2.1 Communication tasks – verbal	Student comprehends spoken English delivered at conversational speed. Student communicates effectively in spoken English. Student understands and responds to verbal communications accurately, appropriately and in a timely manner.	Participates effectively in tutorial and group work discussions. Effectively uses persuasive techniques to communicate a position or argument.	Acknowledges and adheres to a respect for each worker's personal space. Understands and responds accurately and appropriately in a time-constrained environment when provided with additional verbal information impacting on a work process (e.g. changes to a clinical analysis protocol; changes in status for analysis). Effectively articulates and relays information verbally, based on clinical practice guidelines or clinical trials. Understands limitations in knowledge, experience and skill (e.g. timely advice provided by the pathology to the requesting clinician/supervisor when an abnormal result has been identified). Deals with mistakes and failings, which may happen in the laboratory, in an ethical and honest way, admitting to colleagues, supervisors and clients that a mistake has been made and putting in place corrective action. Is aware of, and takes responsibility for, personal role in inter-personal and team interactions, including personal responses to cultural and professional paradigms.

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2.2 Communication tasks – verbal	Student communicates effectively in written English.	Reads and comprehends scientific information provided. Communicates complex academic and scientific perspectives in writing. Summarises and appropriately references a range of literature in written documents. Responds appropriately and in a timely manner to communications from the University.	Understands and follows policy and procedure documents, including clinical practice guidelines. Reads, understands and uses precise and appropriate language to contribute clearly to handwritten and electronically-produced records/reports in a time-constrained environment. Writes an appropriate application for work placements. Constructs a report in a manner that meets professional standards. Records information accurately and makes coherent notes. Effectively articulates and relays written information based on clinical practice guidelines or clinical trials.
2.3 Communication tasks – Non-verbal	Student comprehends non-verbal information and cues. Student demonstrates non-verbal communication skills appropriate to the circumstances.	Communicates respectfully with academic and professional staff. Respects personal and professional boundaries. Communicates appropriately in classroom situations.	Uses non-verbal communication that is respectful of others and appropriate to the nature of the discussion during work team meetings and presentations. Recognises and understands cues in facial expression, appearance, behaviour, posture, and/or movement in people and in animals and

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		Shows consistent and appropriate awareness of own behaviours towards fellow students and teaching staff.	responds appropriately in context. Respects personal and professional boundaries. Shows consistent and appropriate awareness of own behaviours towards other workers.
3.1 Cognitive tasks - Literacy	Student understands and responds to communications written in English accurately, appropriately, and in a timely manner. Student comprehends information delivered in a range of written formats.	Comprehends, summarises and references a range of literature in accordance with appropriate academic conventions. Understands and responds appropriately to written communications (e.g. graphs, tables, diagrams, pictographs) accurately, appropriately, and in a timely manner.	Produces accurate, concise and clear documentation for professional practice to meet legal requirements (e.g. results of microscopic histological examination, interpretation of blood film examination and microbiological microscopic examination of samples, clinical history notes and examination). Follows written instructions, including workplace policies, procedures and guidelines, including clinical practice guidelines. Generates recommendations based on clinical practice guidelines, and on available robust clinical evidence.
3.2 Cognitive tasks – Numeracy	Student accurately processes and reasons with numbers and numerical concepts in a range of contexts.	Understands, interprets and applies numerical concepts and processes appropriately in a timely, accurate and effective manner. Accurately produces and interprets scientific graphs, diagrams and statistical analyses including predicting the	Performs accurate calculations to produce scientific data (e.g. dilution calculations, chemical concentrations to prepare reagents, drug dose and dosage, radiation dose and exposure). Presents data generated effectively and accurately.

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		likelihood of an outcome and comparing the effectiveness of two or more treatment outcomes. Critically analyses validity of data presented. Understands and performs appropriate statistical data analyses.	Accurately interprets scientific, pathology and research data, including data resulting from pathological investigations, machine generated data and result interpretation of colleagues.
3.3 Cognitive tasks – Knowledge and information	Student locates, processes, integrates and implements knowledge and information.	Makes safe and appropriate scientific process decisions from retained knowledge. Researches and uses an evidence based framework to decide on appropriate methodology for scientific inquiries. Understands the need for method optimization and validation, reference ranges and limitations of different methodologies on result interpretation. Identifies and analyses potential causes for abnormalities (e.g. in clinical analysis results, intended or unintentional adulterations, and observations of growth patterns in bacterial cultures).	Develops options and assesses and compares their respective merits. Assesses the application of policy and procedures in the context of professional performance. Listens and responds appropriately to another individual's perspective. Identifies and analyses unanticipated outcomes of applied professional knowledge, informs supervisory staff, and modifies practice for future practice.

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		Notices and responds effectively to critical small changes in instructions, measurements or equipment functioning. Manages and proactively learns from academic set-backs by self-evaluation. Manages multiple priorities and time management decisions.	
4.1 Sensory Tasks – Visual & Olfactory	Student accurately and effectively observes and monitors their physical surrounds. Student accurately perceives, interprets and uses visual and olfactory information.	Processes visual information from reagent labels, electronic displays, wall-posted information, equipment gauges, flasks and pipettes, pipettes, and handwritten and electronic documents. Detects olfactory changes (e.g. gas/toxic fumes, burning) Sets-up and uses equipment and tools appropriately, including centrifuges, sterilisers, microscopes, Petri dishes, and culture plates. Processes the visual information required to add precise quantities of reagent to test tubes, syringes, pipettes, balances. Conducts visual analyses based on colour/tone gradients.	Responds to and analyses differences in colour/tone gradients in cells under a microscope, visual cue on malfunctioning equipment. Sets-up and safely uses surgical equipment and medical technologies. Monitors the broader environment for e.g. patient and worker safety. Responds to and analyses visual cues generated by medical devices.

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4.2 Sensory Tasks – Auditory	Student accurately hears and comprehends auditory information.	Understands learning materials delivered in an aural format. Actively participates in group work. Hears and responds to auditory alerts of electronic equipment. Understands and responds appropriately when presented with comments, instructions or feedback.	Responds to warning alarm systems to maintain personal safety. Understands verbal instructions for procedures to be followed. Interacts with verbal communications that provide additional information impacting on a work process (e.g. discussing setting up and using a new piece of equipment, following instructions on how to conduct proper physical examination or cardiopulmonary resuscitation [CPR], receiving information during clinical handovers). Contributes to discussions with colleagues that will modify practice (e.g. changes to a testing procedure and sampling handling technique). Detects, discriminates and responds to equipment alarms at different frequencies, emergency calls over PA systems, and urgent verbal information for professional practice.
4.3 Sensory Tasks - Tactile	Student accurately gathers and interprets information provided through touch.	Ensures appropriate hand protection when working with chemical and biological hazards. Applies appropriate pressure when pipetting small quantities of reagent into a solution by hand.	Responds to tactile input sufficiently to meet professional performance needs. Ensures appropriate hand protection when working with chemical and biological hazards. Uses careful decanting/pipetting and

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		Holds glass microscopy slides and performs procedures using appropriate equipment and reagents.	manipulation of patient samples.
5.1 Physical tasks – Gross motor tasks	Student safely uses gross motor skills to undertake required learning, assessment and professional tasks.	Effectively accesses and uses laboratory equipment as required. Performs motor tasks required to complete experiments.	Moves and maintains balance and body position around practice areas to access, transport and use reagents, glassware and equipment on varying surfaces and levels, in order to complete tasks within constrained timeframes. Reaches and works across sterile areas without contaminating surfaces or materials. Safely retrieves, moves and utilises stock and equipment from reasonable storage positions.
5.2 Physical tasks – Fine motor tasks	Student safely uses fine motor skills to undertake required learning, assessment and professional tasks.	Exercises a level of manual dexterity required to perform fine motor tasks, such as pipetting and microscope adjustment. Works safely and responsibly with hazardous substances in the laboratory. Contributes to both handwritten and electronic scientific records.	Uses touch screens and instrument panels, microscopes. Uses required components of instruments for scientific/diagnostic procedures. Unscrews reagent bottles, uses pipettes/syringes to accurately dispense small quantities of liquid, place small samples/tubes in analysers/centrifuges. Maintains sterile technique in fume and biohazard hoods and/or during dissections (e.g.

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			opening jars with one hand). Contributes to both handwritten and electronic scientific records.
6. Sustainable performance	Student maintains physical and mental performance at a consistent and sustained level over time.	Sustains study practices to sufficiently engage with the learning workload for a study period, and for the degree, within a timeframe. Undertakes assessments and examinations required to assess necessary skills and knowledge. Works for up to 3 hours in laboratory conditions, taking breaks as necessary, or appropriate without compromising experiment. Maintains a sufficient level of concentration to complete an activity.	Attends classroom, laboratory or fieldwork for the required number of hours per day or week when on placement. Sustains a working posture, associated manual tasks, cognitive engagement, performance level and emotional control for the full duration of a practice process (e.g. accurately pipetting for extended time periods, perform laboratory tasks in a constrained timeframe with an ongoing workload of competing activities).