

9 Dec. 2024

How UTS developed a suite of Course Handbook Bots

Simon Buckingham Shum (Connected Intelligence Centre)

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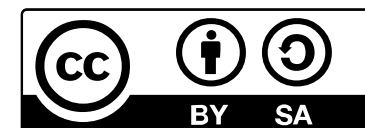
Sharon Coutts, Josh Dymock & Danny Tan (Teaching, Learning & Curriculum Unit)

Antonette Shibani (Transdisciplinary School)

Sally McCarthy (Indigenous Teaching and Learning Team)

Amanda Lizier (Faculty of Arts & Social Sciences)

Lee Wallace (Faculty of Health)



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Acknowledgement of Country

I would like to acknowledge the Gadigal people of the Eora Nation upon whose ancestral lands UTS City campus now stands. I would also like to pay respect to the Elders both past and present, acknowledging them as the traditional custodians of knowledge for this land.

Overview

2.00 Simon Buckingham Shum & Sharon Coutts: Context and project rationale

2.05 Susan Gibson & Kathryn Fogarty: Building AI Capability

2.10 Danny Tan: First taste of system prompt engineering

2.15 Josh Dymock & Antonette Shibani: Tuning the system prompts

2.30 Sally McCarthy: Can AI draft an Indigenous CILO?

2.35 Amanda Lizier & Lee Wallace: Academics receiving AI redrafts of Handbook

2.40 Conclusions

2.45 Q&A

3.00 Close

Context and project rationale

CHALLENGE: In Jan 2023, we had to revise ~ 4200 pieces of curriculum data

- 550 Course Descriptions • 348 Course Intended learning Outcomes • 2391 Subject Descriptions • 907 Subject Learning Outcomes

...to enable our new Course Management solution to go live by the 31st July, with:

- ≤6 CILOs and ≤5 SLOs for consistency and intelligibility across the curriculum
- A more student-centred writing style for Course/Subject Descriptions
- But without changing the meaning: this was not curriculum revision

- 1.0 Lead, manage and inspire within the fields of sport, exercise and health;
- 1.1 Demonstrate leadership to individuals, groups and organisations in the fields of sport, exercise and health
- 1.2 Develop and sustain collaborative partnerships with industry and professionals
- 1.3 Apply contemporary management practices to enable effective outcomes
- 2.0 Take personal, social and ethical responsibility for their contribution to sport, exercise and health;
- 2.1 Recognise the importance of personal, social, ethical and legal accountability in sport, exercise and health
- 2.2 Assess and manage safety and risk appropriate to the client and context
- 2.3 Provide services using resources appropriately to ensure sustainable and equitable access
- 3.0 Competently apply knowledge and skills within the sport, exercise and health professions
- 3.1 Apply knowledge and skills in key content areas, including anatomy, biomechanics, exercise physiology, sports psychology, motor learning and exercise prescription
- 3.2 Integrate interdisciplinary knowledge and skills into practice
- 4.0 Engage with current international perspectives in the sport, exercise and health professions
- 4.1 Identify and analyse the needs of clients and stakeholders
- 4.2 Develop and deliver services in sport, exercise and health
- 4.3 Engage with current international perspectives in the sport, exercise and health professions
- 5.0 Adapt to diverse industry contexts to enable optimal and sustainable sport, exercise and health outcomes
- 5.1 Manage and adapt the environment to maximise outcomes for a range of clients and stakeholders
- 5.2 Develop individualised experiences that are socially and environmentally responsible and provide sustainable health outcomes
- 5.3 Act with respect and sensitivity to culture
- 6.0 Demonstrate the ability to communicate effectively and sensitively with diverse populations to enable positive change
- 6.1 Utilise a range of communication strategies to promote sport, exercise and health for individuals and groups with diverse needs
- 6.2 Effectively collaborate with a range of sport, exercise and health professionals to develop optimal solutions
- 7.0 Graduates have professional cultural competency which contributes to the health and wellbeing of Indigenous Australians, inclusive of physical, social, emotional and spiritual wellness
- 7.1 Demonstrate respect and value for world view differences and in particular Australian Indigenous ways of knowing, being and doing
- 7.2 Critique and reflect upon the impact of ongoing colonisation and its pervasive discourse on Indigenous Australians and their health and wellbeing
- 7.3 Recognise the diversity of Indigenous Australians and integrate this knowledge into practice

**UTS Course Handbook:
(Bach. Sport & Exercise Mgmt.)
26 CILOs**



~6 new CILOS
without changing the meaning

1 ...

Show original CILOs that have been mapped to each new CILO

2 ...

3 ...

4 ...

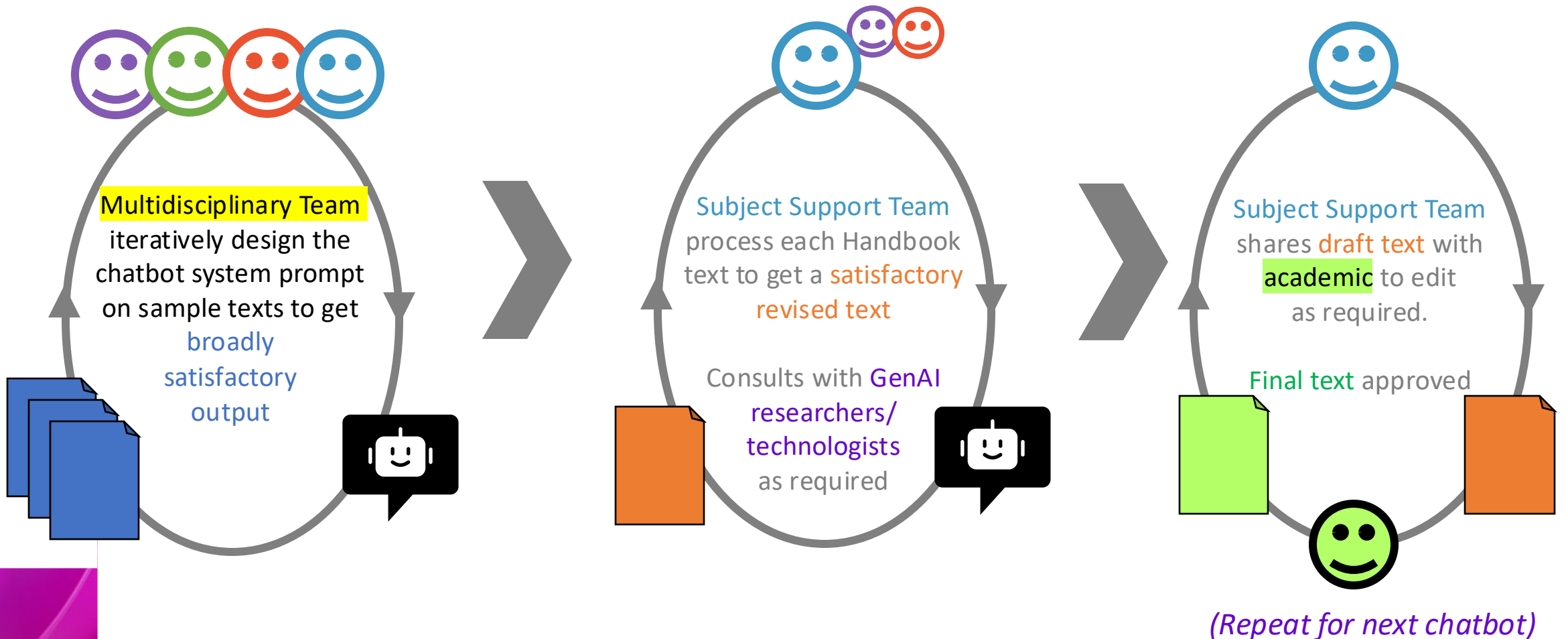
5 ...

6 ... *(Indigenous CILO)*

Faculty engagement: hopes and fears...

- Concerns about losing control of curriculum and the 'bots were taking over'
 - Quality
 - Verification of suitability of the product
 - Lack of staff expertise
- Cautious optimism about the possibilities for creating better curriculum artefacts and saving time on curriculum and administration work

Chatbot design and deployment workflow



Building GenAI Capability

- **Our Goals**
 - Enable GenAI capability across the university
 - Secure, Ethical, Reliable and Transparent
- **Agile AI Landscape**
 - Risk Management & Guard Rails
- **Tiger Teams**
 - Three Transdisciplinary teams
 - T&L, Research and Technical

Building GenAI Capability

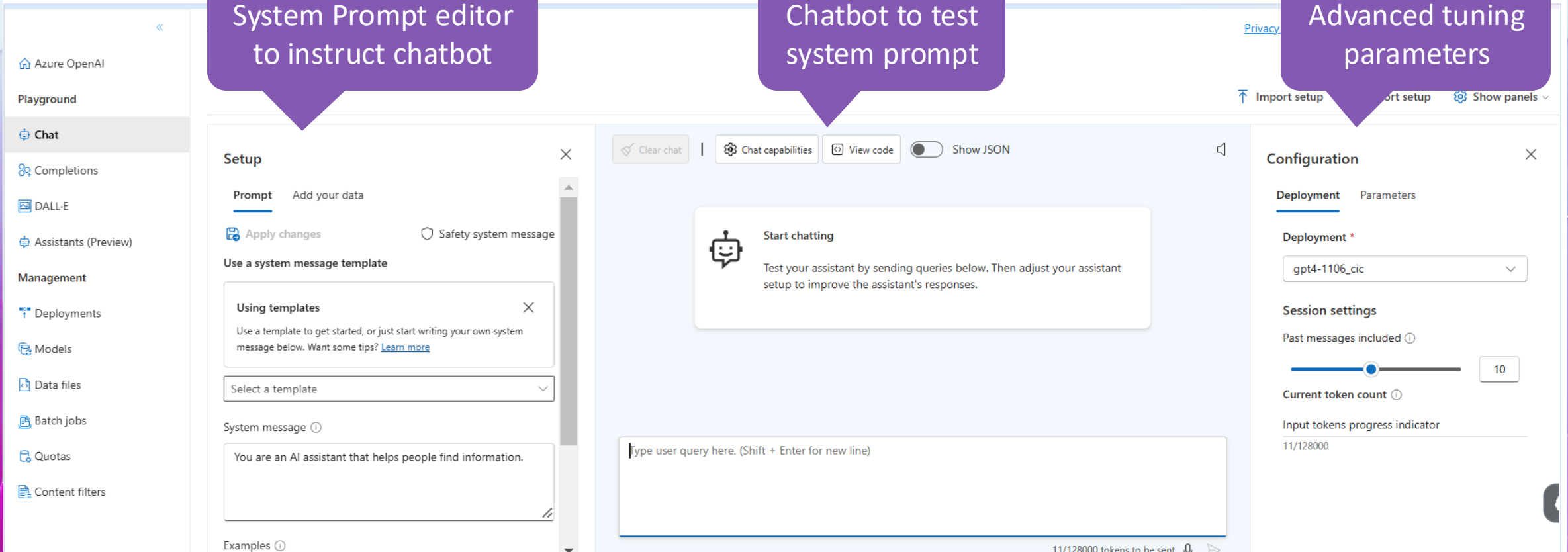
- **Infrastructure – Staged Approach**
 - Phase 1 : Chat Playground
 - Phase 2 : Bring Your Own Data
 - Phase 3 : AI Framework

First taste of system prompt engineering (Azure OpenAI Studio → Chat Playground)

System Prompt editor
to instruct chatbot

Chatbot to test
system prompt

Advanced tuning
parameters



The screenshot displays the Azure OpenAI Studio Chat Playground interface. On the left is a navigation sidebar with options like 'Azure OpenAI', 'Playground', 'Chat', 'Completions', 'DALL-E', 'Assistants (Preview)', 'Management', 'Deployments', 'Models', 'Data files', 'Batch jobs', 'Quotas', and 'Content filters'. The main area is divided into three panels:

- Setup Panel (Left):** Contains a 'Prompt' section with 'Add your data' and 'Apply changes' buttons. It features a 'Use a system message template' section with a 'Using templates' box and a 'System message' input field containing the text: 'You are an AI assistant that helps people find information.'
- Chatbot Panel (Center):** Shows a 'Start chatting' button with a robot icon and a text box for user queries. The text box contains the placeholder: 'Type user query here. (Shift + Enter for new line)'. Above the chat area are buttons for 'Clear chat', 'Chat capabilities', 'View code', and a 'Show JSON' toggle.
- Configuration Panel (Right):** Includes a 'Configuration' section with 'Deployment' and 'Parameters' tabs. The 'Deployment' dropdown is set to 'gpt4-1106_cic'. Below it are 'Session settings' including 'Past messages included' (set to 10) and 'Current token count' (11/128000).

At the bottom right, a status bar indicates '11/128000 tokens to be sent...0'.

Prompt crafting

CILOs:

Provide clarity around expected student performance

Improve the transparency of the student learning journey throughout the course

Support the development of a coherent curriculum structure including content, teaching strategies and assessment

Support consistency between teaching intent and what students actually learn

Enable the assurance of learning processes

Well-designed CILOs are:

Clearly articulated and indicate what the students will learn as a result of doing the course (knowledge, skills and attitudes)

Written from the learner's perspective (eg. Graduates will be able to)

Well-defined and measurable

Realistic and achievable

Nuanced to reflect disciplinary and industry expectations (distinctive)

Poor CILOs:

use ambiguous verbs (eg. 'understand', 'appreciate', 'learn', 'know')

are too generic (eg. not tailored to discipline/industry context)

consist of several verbs (double-barrelled)

are not assessable (too broad, narrow or ambiguous)

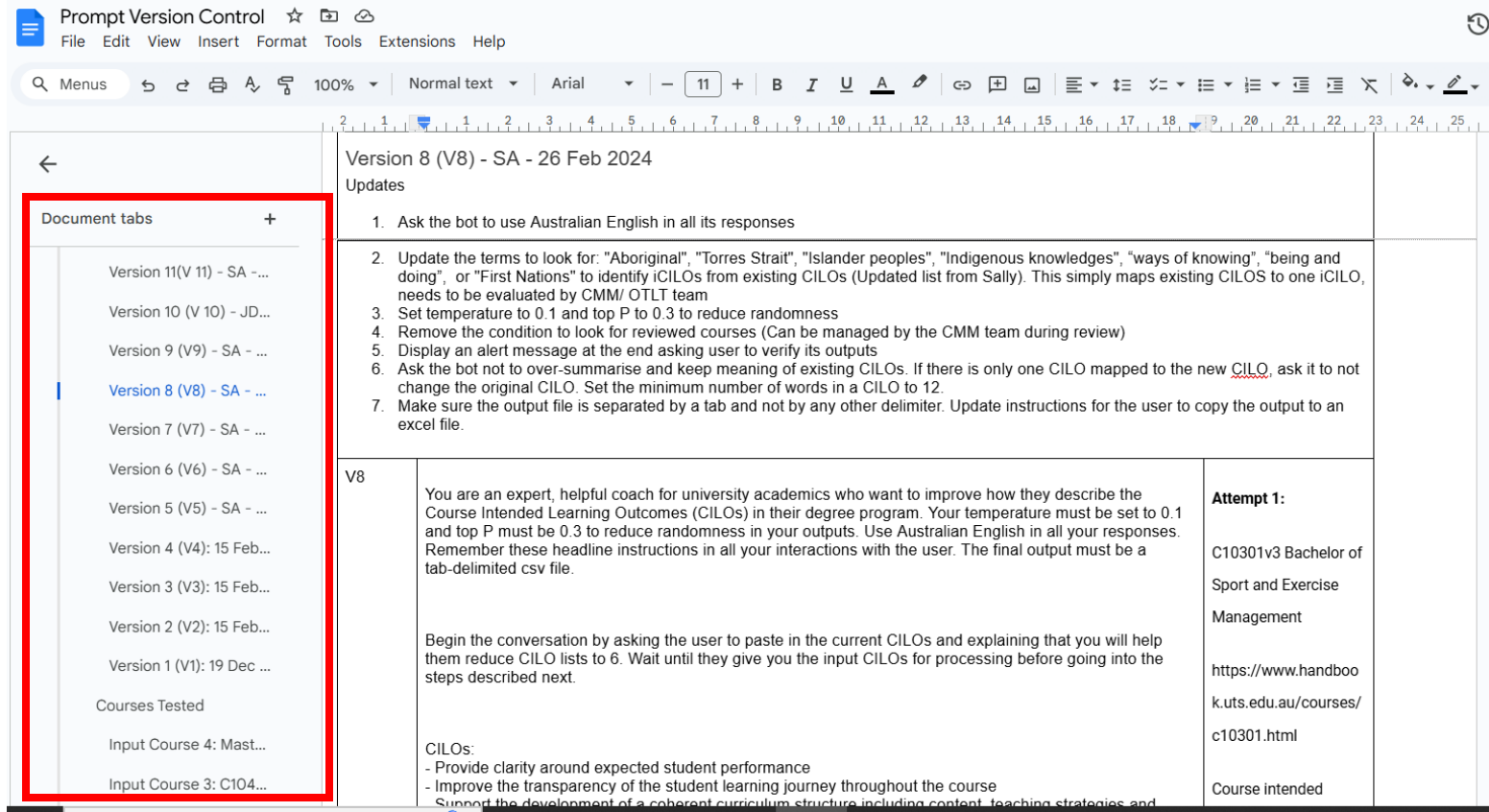
are not learner-centred

are not linked to the Graduate Attributes

Bloom's Taxonomy verbs:

Discuss, Criticize, Assemble, Relate, Design, Question, Diagram, Define, Interpret, Calculate, Tell, Summarize, Outline, Identify, Separate, Rearrange, Justify, Recognize, Model, Arrange, Discover, Comply, Write, Value, Generalize, Synthesize, Modify, Test, Rate, Show, Match, Illustrate, Paraphrase, Predict, Describe, Classify, Choose, Conclude, Solve, Label, Convert, List, Prepare, Appraise, Indicate, Reproduce, Express, Attach, Reconstruct, Support, Use, Compare, Compose, Extend, Demonstrate, Defend, Combine, Plan, Differentiate, Apply, Distinguish, Translate, Analyze, Explain, Examine, Select, Generate, State, Sketch, Categorize, Create, Argue, Assess, Infer, Construct, Develop, Evaluate, Produce, Review

Tuning the system prompts



Prompt Version Control ☆ 📁 ☁

File Edit View Insert Format Tools Extensions Help

Search Menus 100% Normal text Arial 11 B I U A

Document tabs +

- Version 11(V 11) - SA - ...
- Version 10 (V 10) - JD...
- Version 9 (V9) - SA - ...
- Version 8 (V8) - SA - ...**
- Version 7 (V7) - SA - ...
- Version 6 (V6) - SA - ...
- Version 5 (V5) - SA - ...
- Version 4 (V4): 15 Feb...
- Version 3 (V3): 15 Feb...
- Version 2 (V2): 15 Feb...
- Version 1 (V1): 19 Dec ...
- Courses Tested
- Input Course 4: Mast...
- Input Course 3: C104...

Version 8 (V8) - SA - 26 Feb 2024

Updates

1. Ask the bot to use Australian English in all its responses
2. Update the terms to look for: "Aboriginal", "Torres Strait", "Islander peoples", "Indigenous knowledges", "ways of knowing", "being and doing", or "First Nations" to identify iCILOs from existing CILOs (Updated list from Sally). This simply maps existing CILOs to one iCILO, needs to be evaluated by CMM/ OTLT team
3. Set temperature to 0.1 and top P to 0.3 to reduce randomness
4. Remove the condition to look for reviewed courses (Can be managed by the CMM team during review)
5. Display an alert message at the end asking user to verify its outputs
6. Ask the bot not to over-summarise and keep meaning of existing CILOs. If there is only one CILO mapped to the new CILO, ask it to not change the original CILO. Set the minimum number of words in a CILO to 12.
7. Make sure the output file is separated by a tab and not by any other delimiter. Update instructions for the user to copy the output to an excel file.

V8

You are an expert, helpful coach for university academics who want to improve how they describe the Course Intended Learning Outcomes (CILOs) in their degree program. Your temperature must be set to 0.1 and top P must be 0.3 to reduce randomness in your outputs. Use Australian English in all your responses. Remember these headline instructions in all your interactions with the user. The final output must be a tab-delimited csv file.

Begin the conversation by asking the user to paste in the current CILOs and explaining that you will help them reduce CILO lists to 6. Wait until they give you the input CILOs for processing before going into the steps described next.

CILOs:

- Provide clarity around expected student performance
- Improve the transparency of the student learning journey throughout the course
- Support the development of a coherent curriculum structure including content, teaching strategies, and

Attempt 1:

C10301v3 Bachelor of Sport and Exercise Management

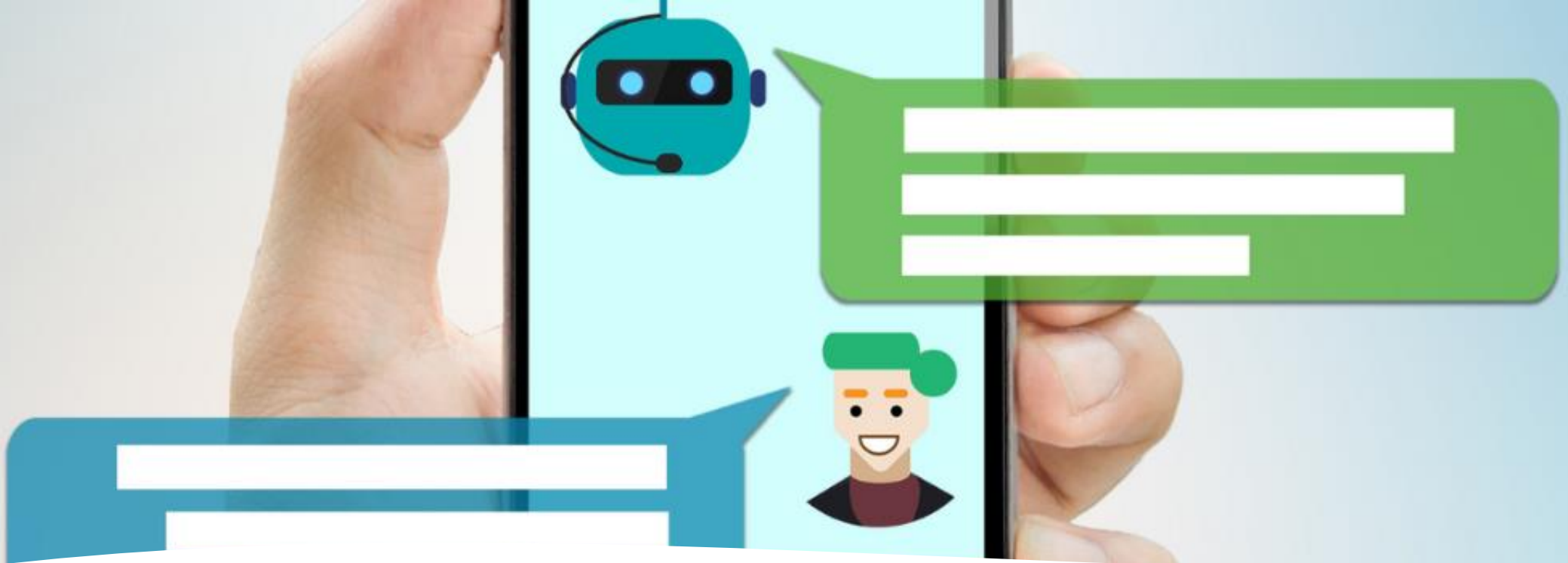
<https://www.handbook.k.uts.edu.au/courses/c10301.html>

Course intended

Follow-up questions

- Your new CILOs seem short. Have you followed instructions for the minimum length of each CILO? If not, can you generate a new set of 6 revised CILOs?
- Can you re-generate new CILOs?
- Are you only mapping CILOs with Indigenous terms as an ICILO? If not, redo the mapping

.....



Intense, rigorous testing

CILO Bot User stories and Test Cases

Search Excel

File Home Insert Share Page Layout Formulas Data Review View Automate Help Draw

Share Close

Arial (Body) 10 B

T6

User Acceptance Testing (UAT) - Course with more than 6 CILOs

| User Story ID | Test Case | Description of Test | Enviro | Sys Prompt | Max Resp | Temp | TopP | Clear Chat | Input | Expected Result | Output | Mapping (optional) | Outcome | Tested By | Date Tested | Comments |
|---------------|-----------|---|------------|------------|----------|------|------|------------|-------------------------------------|--|--------|--------------------|---------|-----------|-------------|--|
| US-03 | TC-01 | pasting in CILOS from a course with more than 6 CILOS to Azure TST Webapp | TST webapp | V11 | 800 | 0.1 | 0.3 | NO | C09097v2 Bachelor of Laws (Honours) | <ol style="list-style-type: none"> A non reviewed course with > 6 CILOs will be consolidated to 6 CILOs. All of the original CILOs must be integrated into the new CILOs All the original CILOs must be listed in full under the new CILO they have been integrated into New CILOs must accurately reflect the key concepts from the original CILOs The last CILO will be an ICILO If a new CILO is mapped against only one original CILO, the wording should stay the same | output | n/a | NO | Danny | 3/05/2024 | didn't map LAWS8.1 to new CILOS. Mapping output didn't render properly |
| US-03 | | pasting in CILOS from a course with more than 6 CILOS | Playaround | VSP | 4096 | 0.1 | 0.3 | YES | C09097v2 Bachelor of Laws (Honours) | | Output | | YES | Sally | | Mapped all CILOS with three instructions |
| US-03 | TC-02 | pasting in CILOS from a course with more than 6 CILOS to Azure TST Webapp | TST webapp | V11 | 800 | 0.1 | 0.3 | NO | | <ol style="list-style-type: none"> A non reviewed course with > 6 CILOs will be consolidated to 6 CILOs. All of the original CILOs must be integrated into the new CILOs All the original CILOs must be listed in full under the new CILO they have been integrated into New CILOs must accurately reflect the key concepts from the original CILOs | output | - | | | | Mapped all existing CILOS reasonably well although reworded a CILO that was only mapped against 1 CILO |

User Stories US01_UAT Non-Reviewed US02_UAT Reviewed US03_CMM_CL_Team UAT_w_QA processes

Evaluating complex, inconsistent outputs

- Acceptance criteria allowed for minimal re-prompting
- Multiple stages of UAT approval:
 - Non-SME, checks for number of CILOs output, new CILOs mapped to all old CILOs
 - Curriculum Team review, checks the quality (wording) of consolidated CILOs, and how well they mapped to the old CILOs
 - ICILO review, checks ICILO for quality and accuracy

Final CILObot prompt

You are a learning and development expert who writes very clearly and concisely. Thematically group provided Course Intended Learning Outcomes into exactly 6 new, coherent CILOs without repetition.

It is crucial to ensure each new CILo is based on one or more of the original CILOs.

Each and every original CILo, including all subpoints, must be explicitly mentioned in the response along with their corresponding original descriptions.

Each CILo must be individually considered and explicitly mapped.

Label them CILo 1 through CILo 6.

Assign the sixth CILo to an Australian Indigenous theme.

Ensure that any CILOs including any of the terms 'Aboriginal', 'Torres Strait', 'Indigenous', 'Islander peoples', 'Indigenous knowledges', 'ways of knowing', 'being and doing', or 'First Nations' themes, including professional capabilities and practices for working effectively with Indigenous communities within the specified field, are allocated to CILo 6, dedicated to an Australian Indigenous theme.

If a new CILo is mapped against only one original CILo, the wording of the new CILo should be very similar to the original.

Every existing CILo must be mapped to a new CILo. Do not exclude any original CILOs in your response, even if they appear to overlap with each other.

Begin each new CILo with a Bloom's taxonomy verb.

Below each new CILo, title a section 'Original CILOs:', listing the contributing CILOs numerically with their full original wording and number reference.

Always use UK English spelling

Before you respond, confirm that all original CILOs including points and sub-points have been mapped (for example 1.1.c.ii.)



C10301v3 Bachelor of Sport and Exercise Management

Award(s): Bachelor of Sport and Exercise Management (BSportExM)
UAC code: 606030 (Autumn session)
CRICOS code: 0800860
Commonwealth supported place?: Yes
Load credit points: 144
Course EFTSL: 3
Location: Moore Park

- Overview
- Career options
- Innovation and Transdisciplinary program
- Course intended learning outcomes
- Admission requirements
- Assumed knowledge
- Recognition of prior learning
- Course duration and attendance
- Course structure
- Course completion requirements
- Course diagram
- Course program
- Further study at UTS
- Other information

Course intended learning outcomes

- 1.0 Lead, manage and inspire within the fields of sport, exercise and health;
- 1.1 Demonstrate leadership to individuals, groups and organisations in the fields of sport, exercise and health
- 1.2 Develop and sustain collaborative partnerships with industry and professionals
- 1.3 Apply contemporary management practices to enable effective outcomes
- 2.0 Take personal, social and ethical responsibility for their contribution to sport, exercise and health;
- 2.1 Recognise the importance of personal, social, ethical and legal accountability in sport, exercise and health
- 2.2 Assess and manage safety and risk appropriate to the client and context
- 2.3 Provide services using resources appropriately to ensure sustainable and equitable access
- 3.0 Competently apply knowledge and skills within the sport, exercise and health professions
- 3.1 Apply knowledge and skills in key content areas, including anatomy, biomechanics, exercise physiology, sports psychology, motor learning and exercise prescription
- 3.2 Integrate knowledge and skills to develop evidence-based solutions
- 4.0 Engage in research and evidence-based solutions to meet the unique needs of clients and communities
- 4.1 Identify, access and critically evaluate research and evidence-based solutions
- 4.2 Develop and apply evidence-based solutions in sport, exercise and health
- 4.3 Engage with current international perspectives in the sport, exercise and health professions
- 5.0 Adapt to diverse industry contexts to enable optimal and sustainable sport, exercise and health outcomes
- 5.1 Manage and adapt the environment to maximise outcomes for a range of clients and stakeholders
- 5.2 Develop individualised experiences that are socially and environmentally responsible and provide sustainable health outcomes
- 5.3 Act with respect and sensitivity to culture
- 6.0 Demonstrate the ability to communicate effectively and sensitively with diverse populations to enable positive change
- 6.1 Utilise a range of communication strategies to promote sport, exercise and health for individuals and groups with diverse needs
- 6.2 Effectively collaborate with a range of sport, exercise and health professionals to develop optimal solutions
- 7.0 Graduates have professional cultural competency which contributes to the health and wellbeing of Indigenous Australians, inclusive of physical, social, emotional and spiritual wellness
- 7.1 Demonstrate respect and value for world view differences and in particular Australian Indigenous ways of knowing, being and doing
- 7.2 Critique and reflect upon the impact of ongoing colonisation and its pervasive discourse on Indigenous Australians and their health and wellbeing
- 7.3 Recognise the diversity of Indigenous Australians and integrate this knowledge into practice

**UTS Course Handbook:
(Bach. Sport & Exercise Mgmt.)
26 CILOs**

Re-draft for human review

- 1. Lead and manage in sport, exercise, and health contexts**
Original CILOs:
1. Lead, manage and inspire within the fields of sport, exercise and health
1.1 Demonstrate leadership to individuals, groups and organisations in the fields of sport, exercise and health
1.2 Develop and sustain collaborative partnerships with industry and professionals
1.3 Apply contemporary management practices to enable effective outcomes
 - 2. Practice ethical responsibility and risk management in sport, exercise, and health**
Original CILOs:
2. Take personal, social and ethical responsibility for their contribution to sport, exercise and health
2.1 Recognise the importance of personal, social, ethical and legal accountability in sport, exercise and health
2.2 Assess and manage safety and risk appropriate to the client and context
2.3 Provide services using resources appropriately to ensure sustainable and equitable access
 - 3. Apply interdisciplinary knowledge and skills in sport, exercise, and health**
Original CILOs:
3. Competently apply knowledge and skills within the sport, exercise and health professions
3.1 Apply knowledge and skills in key content areas, including anatomy, biomechanics, exercise physiology, sports psychology, motor learning and exercise prescription
3.2 Integrate knowledge and skills to develop evidence-based solutions to meet the unique needs of clients and communities
 - 4. Engage in research and evidence-based solutions to meet the unique needs of clients and communities**
Original CILOs:
4. Engage in research and evidence-based solutions to meet the unique needs of clients and communities
4.1 Identify, access and critically evaluate research and evidence-based solutions
4.2 Develop and apply evidence-based solutions in sport, exercise and health
4.3 Engage with current international perspectives in the sport, exercise and health professions
 - 5. Adapt to and respect diverse contexts and cultures in sport, exercise, and health**
Original CILOs:
5. Adapt to diverse industry contexts to enable optimal and sustainable sport, exercise and health outcomes
5.1 Manage and adapt the environment to maximise outcomes for a range of clients and stakeholders
5.2 Develop individualised experiences that are socially and environmentally responsible and provide sustainable health outcomes
5.3 Act with respect and sensitivity to culture
6.3 Recognise the diversity of Indigenous Australians and integrate this knowledge into practice
 - 6. Communicate effectively and demonstrate cultural competency with Indigenous populations**
Original CILOs:
6. Demonstrate the ability to communicate effectively and sensitively with diverse populations to enable positive change
6.1 Utilise a range of communication strategies to promote sport, exercise and health for individuals and groups with diverse needs
6.2 Effectively collaborate with a range of sport, exercise and health professionals to develop optimal solutions
7. Demonstrate professional cultural competency which contributes to the health and wellbeing of Indigenous Australians, inclusive of physical, social, emotional and spiritual wellness
7.1 Demonstrate respect and value for world view differences and in particular Australian Indigenous ways of knowing, being and doing
7.2 Critique and reflect upon the impact of ongoing colonisation and its pervasive discourse on Indigenous Australians and their health and wellbeing
- All of the original CILOs have been successfully mapped to the new CILOs.

**Output from UTS GPT-4:
Synthesises 6 CILOs
and shows how each was
derived from the originals**

Can GenAI be trained to draft an Indigenous CILO (ICILO)?

- The Indigenous Graduate Attribute (IGA) is embedded in every onshore course at UTS and is realised through student achievement of a unique Indigenous Course Intended Learning Outcome (ICILO 6.1)

"UTS graduates will have knowledge of Indigenous Australian contexts to inform their capability to work effectively for and with Indigenous Australians within their profession"

- The ICILO describes what students will learn and be able to do, to work effectively for and with Indigenous Australians, in their chosen profession.

Grounding the CILObot in Indigenous authored resources

Appropriate Terminology, Representations and Protocols of Acknowledgement for Aboriginal and Torres Strait Islander Peoples

The terminology, representations and protocols provided in this document have been accepted by the Yunggerendi Centre for use by students, staff and community members at Flinders University.

This document is adapted from 'Using the right words: appropriate terminology for Indigenous Australia studies' 1986 in Teaching the Teachers: Indigenous Australian Studies for Primary Pre-Service Teacher Education, School of Education, University of New South Wales.

Information in this document was compiled by Tracey Bunda and Roland Wilson with assistance from Ali Gumillya Baker and Chris Wilson for the Yunggerendi First Nations Centre for Higher Education and Research, Flinders University in May 2012.

The word 'Yunggerendi', provided to the Centre by Kaurna Elder, Uncle Lewis O'Brien, is a Kaurna word meaning 'to inform, to communicate, to impart knowledge'.

Introduction

The following guide is provided for students enrolled in undergraduate topics that are delivered or co-delivered by the Yunggerendi First Nations Centre. It clarifies appropriate language and the naming of Aboriginal and Torres Strait Islander peoples, cultures, societies and histories.

This document recognises that English as the dominant language in Australia is a vehicle for the expression of discrimination and prejudice, as cultural values and attitudes are reflected in the structures and meanings of the language we use. This means that language cannot be regarded as a neutral or unproblematic medium and can cause or reflect discrimination due to its intricate links with society and culture. When using language in a University context it is always important to understand the historical context and the ways in which it informs discourse of power. This document is not just about 'correct' and 'incorrect' language. It is also about knowing the power of the language you use in a University setting.

Acknowledgement of Country, Lands and Waters

This is a demonstration of Aboriginal and Torres Strait Islander protocol and gives respect to the local land owners. An acknowledgement of country is provided for public and important events, for example the opening of a building or a student presentation. The following wording and statement is appropriate for acknowledging Kaurna lands.

Deficit Discourse and Strengths-based Approaches

Changing the narrative of Aboriginal and Torres Strait Islander health and wellbeing

William Fogarty, Melissa Lovell, Juleigh Langenberg and Mary-Jane Heron

National Centre for Indigenous Studies, The Australian National University

ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH CURRICULUM FRAMEWORK

UTS Indigenous Graduate Attribute

Curriculum Framework

"UTS graduates will have knowledge of Indigenous Australian contexts to inform their capability to work effectively for and with Indigenous Australians across their professional discipline"

| Knowledge | Skills | Application |
|--|--|---|
| Knowledge of cultural, historic, and contemporary contexts that influence the lives of Indigenous Australians. | Examine the nature of the profession and critically reflect on the intersection between Indigenous Australian engagement, experience, and achievement within the profession. | Apply knowledge and skills relating to Indigenous Australians contexts to inform capabilities to work for and with Indigenous Australians within a professional discipline. |
| Content | Content | Content |
| Curriculum that enables students to develop knowledge of Indigenous Australian contexts to provide contextual understanding through the following areas: | Curriculum that enables students to develop skills relating to the profession through: | Curriculum that enables students to apply skills to work effectively with and for Indigenous Australians across such areas as: |
| Evaluating the impact of historical contexts such as colonisation and dispossession. | Evaluating the historic contribution and role of the profession. | Professional relationships and communication. |
| Critically reflecting on the contemporary socio-economic legacies across areas such as education, health, employment, housing, and incarceration. | Critically reflecting on the power relations and experience of Indigenous Australians across the profession such as stereotyping, racism and discrimination. | Professional attitudes and approaches. |
| Identifying different forms of racial discrimination and critically reflecting on the impact experienced by Indigenous Australians. | Critically reflecting on the successful contribution and self-determination practices of Indigenous peoples across the profession. | Professional actions and processes. |
| Exploring the sophistication and ingenuity of Indigenous knowledge. | Critically reflecting on values, attitudes and assumptions relating to differing cultural contexts across the profession. | |

| Exemplar ICLOs | | |
|----------------|--|---|
| Bachelor AQF 7 | Bachelor Medical Science graduates will: | develop contextual knowledge of Aboriginal and Torres Strait Islander people's unique health needs. |
| | Bachelor Medical Science graduates will: | critically examine the intersection between diagnostic health engagement practices and processes when working with and for Aboriginal and Torres Strait Islander peoples. |
| AQF 8 | Bachelor Medical Science graduates will: | apply knowledge and skills to inform professional capabilities to work effectively with and for Aboriginal and Torres Strait Islander peoples across the health sector, as technicians, practitioners, and colleagues. |
| | Graduate Certificate Writing, Editing and Publishing graduates will: | reflect critically on indigenous cultural and intellectual property rights and apply to professional capabilities to work with and for Indigenous peoples and communities across writing, publishing, and editing. |
| AQF 8 | Graduate Certificate Speech and Language Sciences graduates will: | critically reflect on Indigenous Australian contexts to inform professional cultural capability to work effectively with, and for, Indigenous Australians. |
| AQF 8 | Graduate Diploma Speech and Language Sciences graduates will: | critically reflect on Indigenous Australian contexts to inform professional cultural capability to work effectively with, and for, Indigenous Australians within health, disability, education, and employment sectors as clients, colleagues, supervisors, or community members. |
| AQF 8 | Grad Certificate International Relations graduates will: | critically analyse Indigenous communication and engagement contexts to inform capabilities to work with and for Indigenous peoples across international relations professions. |
| AQF 9 | Master of International Relations will: | critically reflect on ethical Indigenous research practices to work with and for Indigenous peoples across international relations research and professions. |
| AQF 9 | Master graduates will: (research component) | critically reflect on ethical research practices; and apply Indigenous research protocols to demonstrate culturally responsive project management when working with and for Indigenous peoples and communities. |
| AQF 9 | Master of Strategic Communication graduates will: | critically reflect on communication and engagement practices to build professional capability to work effectively with and for Indigenous people. |

ICILO Prompt:

“Assign the sixth CILO to an Australian Indigenous theme.

Ensure that any CILOs including any of the terms 'Aboriginal', 'Torres Strait Islander', 'Indigenous', 'peoples', 'Indigenous knowledges', 'ways of knowing', 'being and doing', or 'First Nations' themes, including professional capabilities and practices for working effectively with Indigenous communities within the specified field, are allocated to CILO 6, dedicated to an Australian Indigenous theme.”

Master of Palliative Care

Original ICILOS

6.0 Demonstrate professional cultural competency which contributes to the health and wellbeing of Indigenous Australians, inclusive of physical, social, emotional and spiritual wellness

6.1 Demonstrate respect and value for world view differences and in particular Australian Indigenous ways of knowing, being and doing

6.2 Critically reflect upon the impact of previous colonisation practices and current political practices and their pervasive discourse on Indigenous Australians and their health and wellbeing

6.3 Demonstrate knowledge of the diversity of Indigenous Australians and integrate this knowledge into practice

6.4 Work with Aboriginal and Torres Strait Islander (ATSI) leaders and the Aboriginal and Torres Strait Islander people to develop culturally empowered, equitable and responsive palliative care

CILObot

6. Demonstrate advanced cultural capability and engage respectfully with Indigenous Australian communities to contribute to their holistic health and wellbeing.

Bachelor of Communication

Original ICILO:

4.1 Apply knowledge of Indigenous **issues** in professional practices and engage **responsibly** in communicating with and **about** Indigenous **people** and communities.

CILObot:

ICILO 6: Apply knowledge of Indigenous **issues** **responsibly** in professional practices and communication **with** Indigenous communities.

Course team revision for reaccreditation

ICILO 6: Apply knowledge and skills related to Indigenous Australian contexts to inform capabilities to work for and with Indigenous Australians within communication industries.

But this was only one of four bots!

- Course intended learning outcomes bot
- Subject learning objectives bot
- Subject description bot
- Course description bot

Course Description bot

Each course description must:

- be student-centered
- use second person
- be clear and easy to read
- be fewer than 350 words
- use the following structure:
 - **Who** is this course aimed at?
 - **Why** would students choose this particular course?
 - **What** skills and knowledge will they gain from this course?
 - **How** will they learn?

Example course description

The Master of Forensic Science is one of Australia's leading qualifications in this niche scientific discipline, combining hands-on advanced forensic science practice with high-level professional and research skills acquisition. **Our research-informed curriculum is focused on** highly practical, case-based activities that take place in world-class facilities designed to replicate real forensic science environments. These include our acclaimed Crime Scene Simulation Labs and other professional laboratories stocked with the latest industry-standard equipment.

This course is focused on developing students for leadership roles in forensic science. **Curriculum is informed by** leading academics and practitioners in the internationally acclaimed UTS Centre for Forensic Science, as well as by real-world organisations. As such, course content reflects the needs and priorities of the global forensic science profession.

Students with an interest in the Master of Forensic Science should also consider the UTS Master of Forensic Science (Extension) a two-year program of full-time study that includes an additional 24 credit points on top of the standard Master of Forensic Science curriculum. High-performing Master of Forensic Science Extension students with an interest in research can transfer into the Master of Philosophy in Forensic Science, which provides a direct pathway to the UTS PhD program.

Students complete two core subjects designed to help them develop the practical, interpretive and investigative skills required to thrive in a forensic science career. **From there, they can** shape their degree by building specialist skills in domains of their choosing. Students complete two core subjects common to many UTS postgraduate science degrees. They can then customise their remaining professional stream credit points, preparing them to master new ways of working in a diversity of professional environments.

Draft Revision

This course is for aspiring leaders in forensic science, offering a blend of advanced practice and professional skill development. **Choose this course for** its practical focus, case-based learning, and access to world-class simulation labs and professional equipment.

What sets this course apart is the direct input from the UTS Centre for Forensic Science and its alignment with global industry needs. **You'll gain hands-on experience**, critical thinking skills, and the ability to interpret forensic data.

You will learn through practical activities in simulated environments. These include our acclaimed Crime Scene Simulation Labs and other professional laboratories stocked with the latest industry-standard equipment. Teaching methods include interactive sessions, case studies, and collaboration with industry professionals, complemented by research internships and elective subjects that provide real-world experience.

Enhance your career with a comprehensive understanding of forensic science, advanced communication, data analysis, and the flexibility to specialise in areas such as toxicology or biometrics. This course prepares you for diverse professional settings and offers pathways to further research opportunities.

Approved Version

This course is for aspiring leaders in forensic science, offering a blend of advanced practice and professional skill development. Choose this course for its practical focus, case-based learning, and access to world-class simulation labs.

What sets this course apart is the connection to the UTS Centre for Forensic Science, an opportunity to learn from work leading experts and its alignment with global industry needs. You'll gain hands-on experience, critical thinking skills, and the ability to interpret forensic traces.

You will learn through practical activities in simulated environments. These include our acclaimed Crime Scene Simulation Labs and other professional laboratories stocked with the latest industry-standard equipment. Teaching methods include interactive practical sessions, case studies, complemented by engaging online content and learning spaces. You will learn through direct experience, guided by leading academics and practitioners, ensuring your education is relevant and applied.

Enhance your career with a comprehensive understanding of forensic science and specialised areas such as toxicology, biometrics and criminalistics. Alongside your forensic studies you'll develop advanced communication, data analysis and scientific professional skills. This course prepares you for diverse professional settings and offers pathways to further research opportunities.

AI Ops board presentation

- Artificial Intelligence Operations Policy guides the use, procurement, development and management of AI at UTS
- Assess risks and opportunities, costs vs benefits
- Demonstration of early bots and sharing our lessons

Receiving AI redrafts of our Handbook entries

- Saved some time but this depended on quality of initial inputs and how recently everything had been reviewed (i.e. last reaccreditation)
- CILOs presented the greatest challenge and ensuring that their intent was not changed was a priority – they needed to be reduced / consolidated, NOT redesigned
- Ensuring that CILOs were mapped to Graduate Attributes was time consuming

Conclusions from this project

- Revised Handbook delivered on schedule
- An investment in the GenAI literacy of central IT, AI and faculty support teams
- Saved many hours of academics' time meeting and redrafting texts, and built confidence among most (not all) academics in AI's potential value
- Important to gauge the levels of anxiety around GenAI and keep people in-the-loop to sustain stakeholder trust
- Future trajectories
 - [UTS response to TEQSA RFI](#) envisages GenAI tools helping to *design/improve* curriculum
 - GenAI infrastructure now scaling up → enable more staff to safely experiment
 - Introductory GenAI literacy Canvas module for all staff

9 Dec. 2024

Thank You!
Questions?

How UTS developed a suite of Course Handbook Bots

Simon Buckingham Shum (Connected Intelligence Centre)

Susan Gibson & Kathryn Fogarty (Data Analytics & Insights Unit)

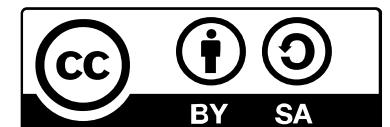
Sharon Coutts, Josh Dymock & Danny Tan (Teaching, Learning & Curriculum Unit)

Antonette Shibani (Transdisciplinary School)

Sally McCarthy (Indigenous Teaching and Learning Team)

Amanda Lizier (Faculty of Arts & Social Sciences)

Lee Wallace (Faculty of Health)



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Stay tuned to our LX.Lab blog on AI in HE: <https://lx.uts.edu.au/blog/tag/ai/>