What does the Co-Operative model mean for curriculum?

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Acknowledgment of Country

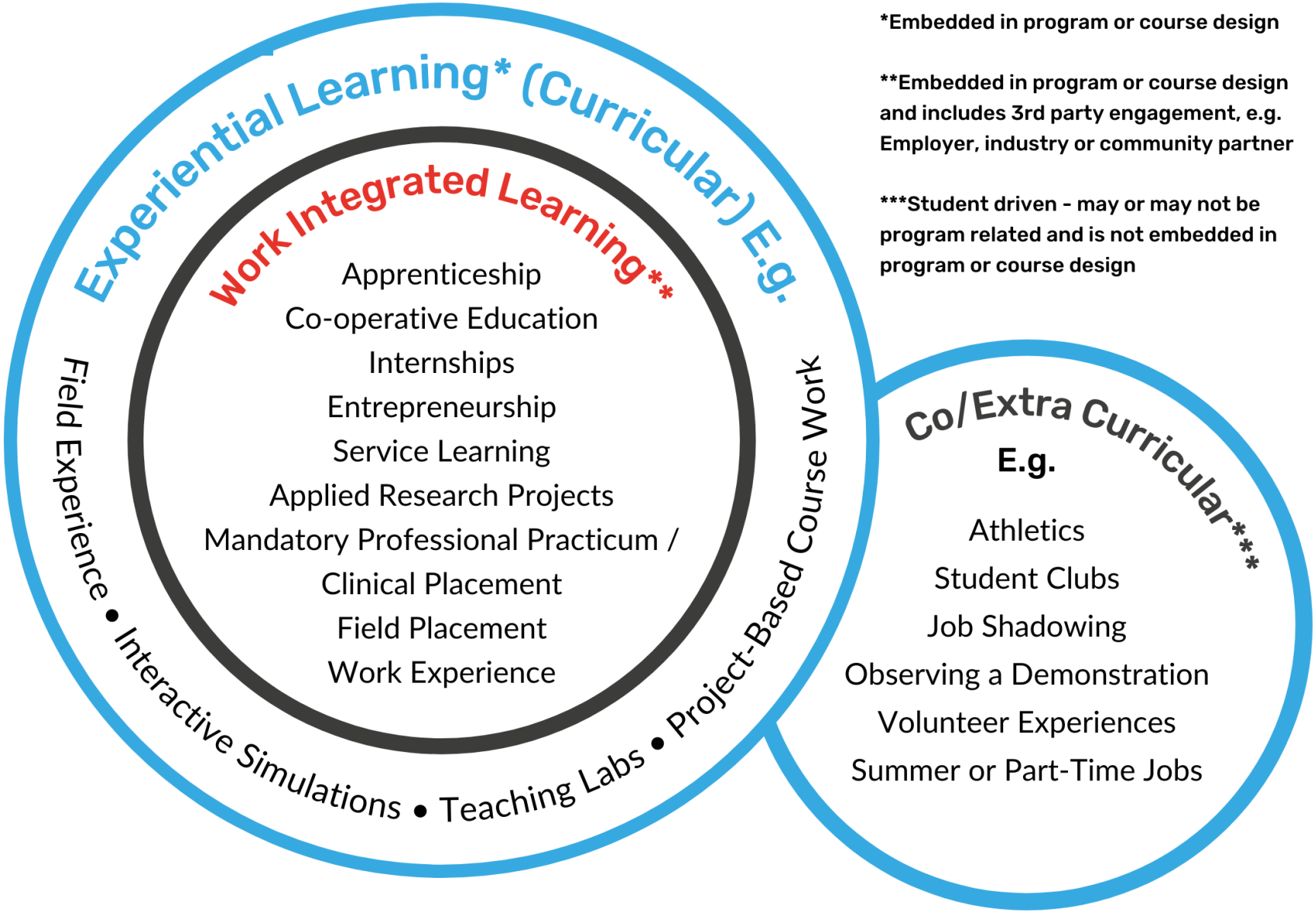
Federation University Australia acknowledges the Traditional Custodians of the lands and waters where our campuses, centres and field stations are located and we pay our respects to Elders past and present, and extend our respect to all Aboriginal and Torres Strait Islander and First Nations Peoples.

Wimmera: Wotjobaluk, Jaadwa, Jadawadjali, Wergaia, Jupagulk
Ballarat: Wadawurrung
Berwick: Boon Wurrung
Gippsland: Gunai Kurnai
Nanya Station: Mutthi Mutthi and Barkindji
Brisbane: Turrbal and Jagera

Overview

1. What is Co-operative (Co-op) education
2. North American context
3. Federation University Co-operative Model
4. Case Study – Institute of Innovation, Science and Sustainability (IISS)
5. Proposed changes at Course Level – Implementation of Co-Op Model within IISS

1. What is Co-operative (Co-op) Education?



*Embedded in program or course design

**Embedded in program or course design and includes 3rd party engagement, e.g. Employer, industry or community partner

***Student driven - may or may not be program related and is not embedded in program or course design

Source: Work integrated Learning – CEWIL (Canada)

1 What is Co-operative (Co-op) Education?

- Well-established (>100 years) in North America as a successful model of work-integrated learning (WIL)

- Key differentiators from other WIL
  - paid cognate work placement
  - integrated into curriculum
  - students complete multiple work terms

- Students earn at least minimum pay

2. North American Context

- Well supported by industry and government (state and federal)
- Accreditation and standards
  - CEWIL (Canada)
  - Accreditation Council for Co-operative Education (USA)
- Canadian Perspective (CEWIL, 2022)
  - Offered at 42 Institutions
  - Work term ~ 400 h
  - Co-op enrolment breakdown for 2022:
    - Total enrolments 79,000
    - Engineering 34%
    - Business/administration 18%
    - Science 12%

3. Federation University Australia Co-operative Model

- Extension of traditional workplace learning and apprenticeships
- Federation Co-op benefits ***students*** by:
  - connecting them to employers and industries throughout their studies
  - giving them access to new opportunities.
  - provides a clear pathway from enrolment to graduation and employment – and the foundation workplace skills needed to hit the ground running.

- For ***employers and industry***
  - addresses many of the skills shortages facing regional Victoria and Australia
  - provides a talent pool of graduates that already understand the real needs of business

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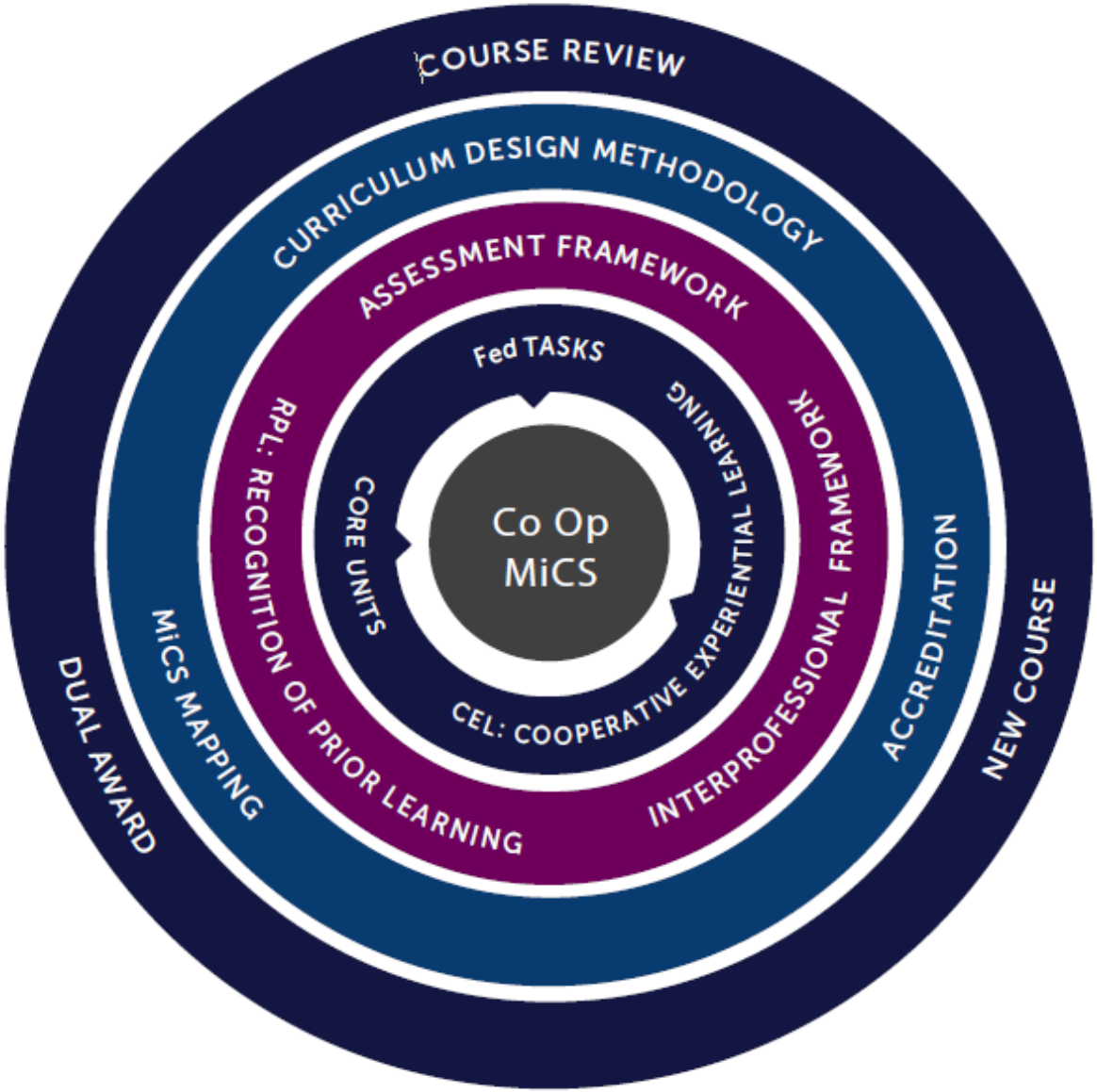
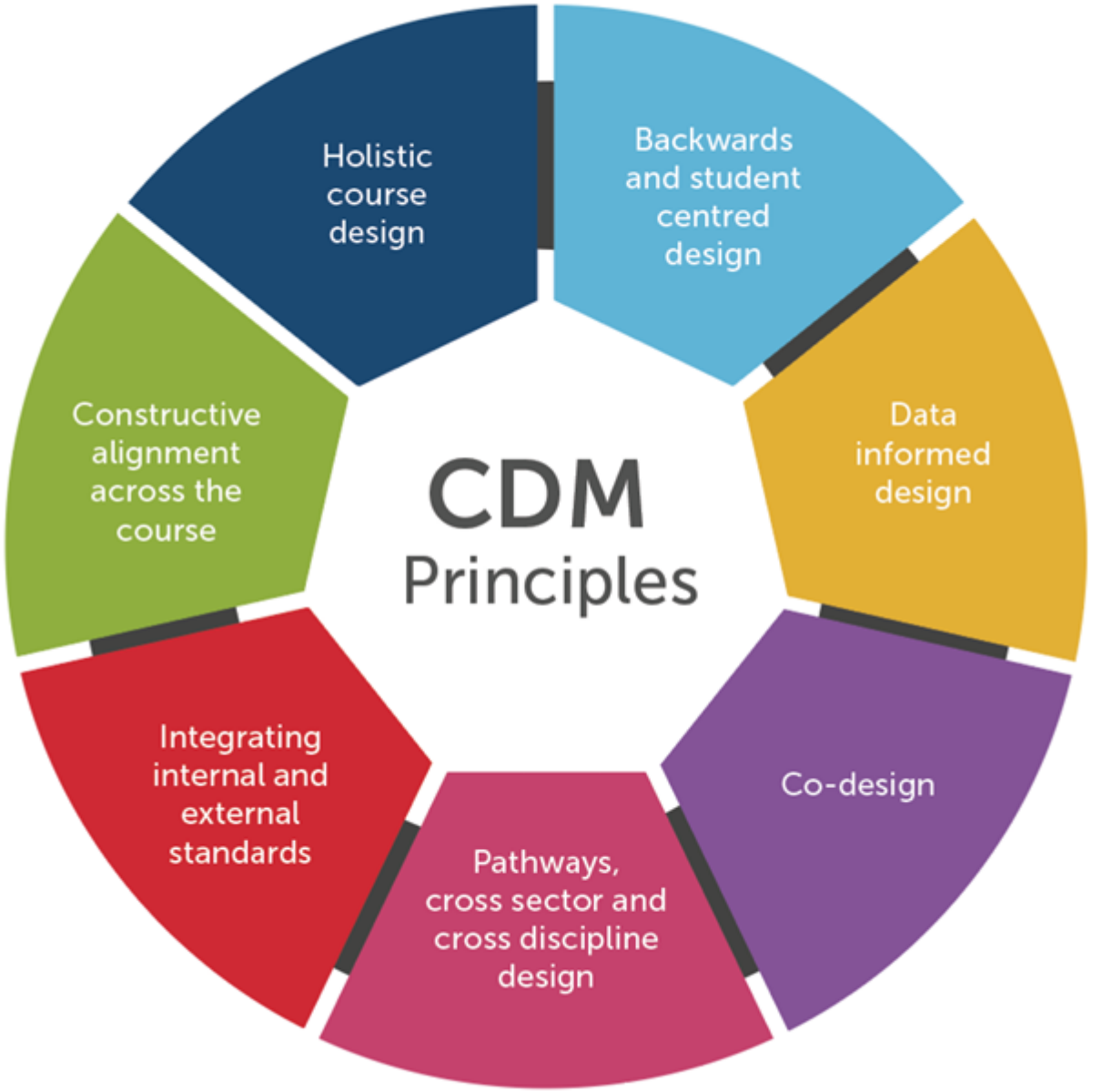
Federation Co-op Model



Curriculum Design Methodology (CDM)



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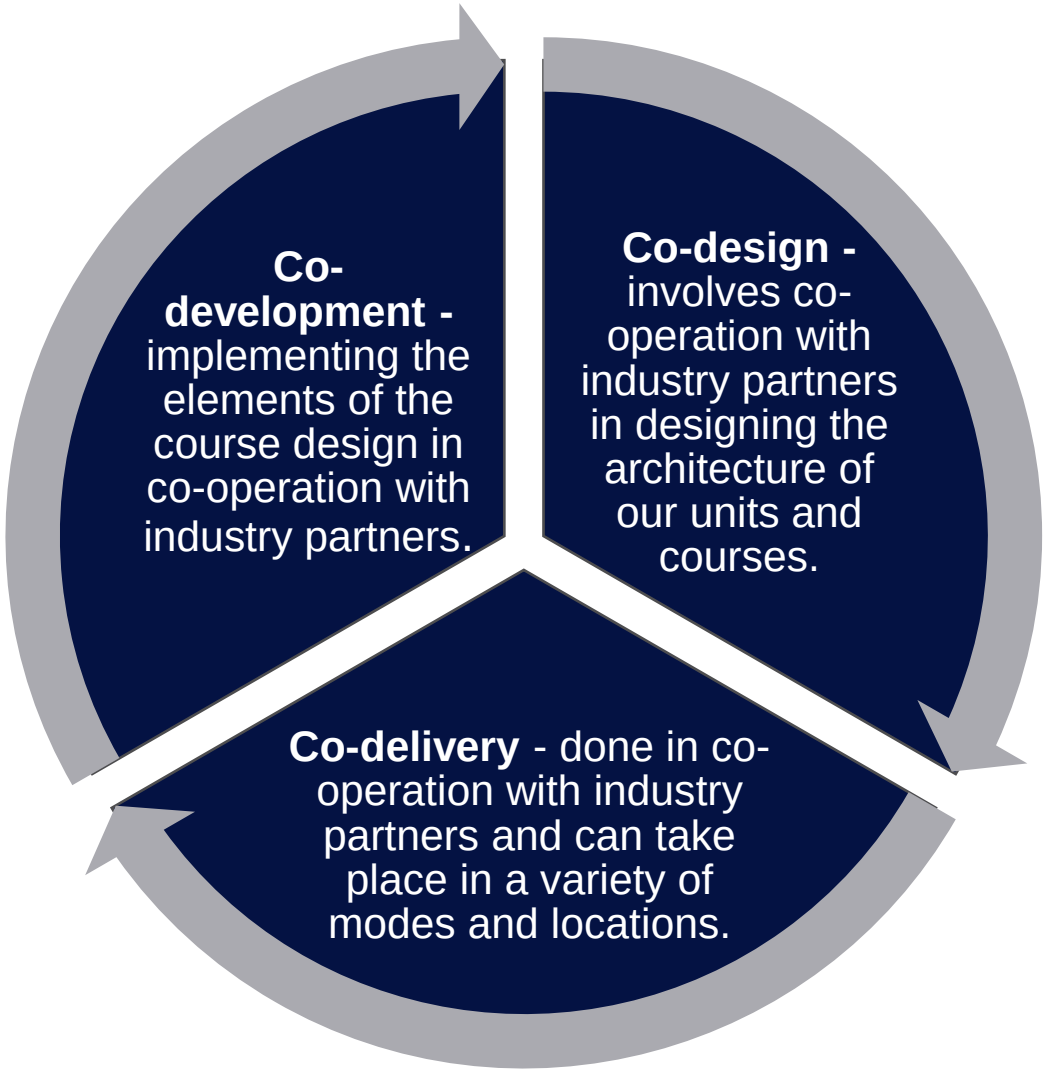
Co-operative Education

- Co-operative Education is different to traditional work placement.
- Involves working with employers and industry in developing our educational pathways to ensure our courses and units meet industry needs through 3 KEY focus areas:
  - **Co-development**
  - **Co-design**
  - **Co-deliver**



Co-op Educational Elements [Course level]

- Seven key criteria to form the **Minimum Co-operative Standards** (MiCS)

1. **Co-design with industry and students**
2. **Co-develop with industry and students**
3. **Co-delivery with industry/community**
4. **FedTASK embedded (Transferrable Attributes, Skills and Knowledge)**
5. **Authentic assessment**
6. **Career preparation**
7. **Industry facing experiences – in, with or for industry**

Note: Standards set by accrediting bodies take precedence over minimum co-op expectations.

Minimum Cooperative Standards (MiCS)

1	Co-design with industry and students	Co-designing curriculum involves cooperation with industry partner(s) in designing the architecture of our programs and courses, beginning prior to the program development
2	Co-develop with industry and students	Co-developing is operationalising the elements of the program design. The extent of the co-development with partner(s) is dependent on the requirements of the Discipline
3	Co-deliver with industry	Co-delivery with industry partner(s) can take place in a variety of modes and locations. The extent of the co-delivery with partner(s) is dependent on the requirements of the Discipline
4	FedTASK alignment	FedTASK stands for Federation specific 'Transferrable Attributes, Skills and Knowledge' that are embedded and assessed across the program
5	Workplace learning and career preparation	Embedded within curricula to maximise opportunities for student success
6	Authentic Assessment	Assessment for, of and as learning directly resembling professional practice
7	Industry-link/industry - facing experiences	Minimum hours of co-op learning experiences – learning with, for and in the workplace (total hrs required differ depending on AQF level of program)

Minimum Cooperative Standards (MiCS) (example AQF 7)

	Minimum co-op expectations	Full co-op expectations
Criteria 1 | Co-design with industry and students *Co-designing curriculum involves cooperation with industry partner(s) and students in designing the architecture of our programs and courses, beginning prior to the content development.*	Pre-design: Program designed using guidance notes provided from both industry and student partners for incorporation OR Post-design: Program is designed by academics and shared with industry and student partners for feedback to incorporate OR Some core courses are actively designed utilising industry and student expertise	Both industry and student partner(s) actively work with university and discipline expertise throughout all stages of the program design. This includes active input into the design of all courses across a program
Criteria 5 | Workplace learning and career preparation *Embedded within curriculum to maximise opportunities for student success*	Generic workplace and career preparation learning embedded within program	Targeted workplace and career preparation learning embedded across the program

Guidance document MiCS AQF Level 7

	Minimum co-op expectations	Full co-op expectations
Criteria 1 | Co-design with industry and students *Co-designing curriculum involves cooperation with industry partner(s) and students in designing the architecture of our programs and courses, beginning prior to the content development.*	Pre-design: Program designed using guidance notes provided from both industry and student partners for incorporation OR Post-design: Program is designed by academics and shared with industry and student partners for feedback to incorporate OR Some core courses are actively designed utilising industry and student expertise	Both industry and student partner(s) actively work with university and discipline expertise throughout all stages of the program design. This includes active input into the design of all courses across a program
Criteria 2 | Co-develop with industry and students *Co-developing is operationalising the elements of the program design. The extent of the co-development with partner(s) is dependent on the requirements of the Discipline.*	Operationalisation of the approved program design utilises pre-development guidance or post development feedback from industry and student partners in the creation of learning content, learning activities and assessment in the program	Operationalisation of the approved program design utilising industry and student expertise in the creation of learning content, learning activities and assessment in 1/3 or more of the program
Criteria 3 | Co-delivery with industry *Co-delivery with industry partner(s) can take place in a variety of modes and locations. The extent of the co-delivery with partner(s) is dependent on the requirements of the Discipline.*	Industry partner(s) are actively involved in co-delivery of learning content, learning activities and/or assessment of learning in collaboration with teaching staff within core elements in the program	Industry partner(s) are actively involved in co-delivery of learning content, learning activities and assessment of learning in collaboration with teaching staff in the majority of the program
Criteria 4 | FedTASK alignment *FedTASK stands for Federation specific "Transferrable Attributes, Skills and Knowledge" that are embedded and assessed across a program*	AQF 7 transferrable attributes, skills and knowledge embedded, assessed and mapped across program	
Criteria 5 | Workplace learning and career preparation *Embedded within curriculum to maximise opportunities for student success*	Generic workplace and career preparation learning embedded within program	Targeted workplace and career preparation learning embedded across the program
Criteria 6 | Authentic Assessment *Assessment for, of and as learning directly resembling professional practice*	At least 30% of the assessment tasks within the program resemble authenticity to professional practice and/or are undertaken in proximity to the workplace	Over 80% of assessment tasks within the program resemble authenticity to professional practice and/or are undertaken within the proximity of the workplace
Criteria 7 | Industry-link/industry-facing experiences *Minimum hours of co-op experiences – learning with, for and in the workplace*	A minimum of 150 hours of (paid or unpaid) industry facing/workplace-based learning experience(s) embedded within program	At least 1/3 of the program has embedded industry-facing/ workplace-based learning experiences

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Criteria 4: MiCS

FED TASK and descriptor	
FEDTASK 1 Interpersonal	Students will demonstrate the ability to effectively communicate, interact and work with others both individually and in groups. Students will be required to display skills in-person and/or online in: • Using effective verbal and non-verbal communication • Listening for meaning and influencing via active listening • Showing empathy for others • Negotiating and demonstrating conflict resolution skills • Working respectfully in cross-cultural and diverse teams.
FEDTASK 2 Leadership	Students will demonstrate the ability to apply professional skills and behaviours in leading others. Students will be required to display skills in: • Creating a collegial environment • Showing self -awareness and the ability to self-reflect • Inspiring and convincing others • Making informed decisions • Displaying initiative
FEDTASK 3 Critical Thinking and Creativity	Students will demonstrate an ability to work in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: • Reflecting critically • Evaluating ideas, concepts and information • Considering alternative perspectives to refine ideas • Challenging conventional thinking to clarify concepts • Forming creative solutions in problem solving
FEDTASK 4 Digital Literacy	Students will demonstrate the ability to work fluently across a range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: • Finding, evaluating, managing, curating, organising and sharing digital information • Collating, managing, accessing and using digital data securely • Receiving and responding to messages in a range of digital media • Contributing actively to digital teams and working groups • Participating in and benefiting from digital learning opportunities
FEDTASK 5 Sustainable and Ethical Mindset	Students will demonstrate the ability to consider and assess the consequences and impact of ideas and actions in enacting ethical and sustainable decisions. Students will be required to display skills in: • Making informed judgments that consider the impact of devising solutions in global economic environmental and societal contexts • Committing to social responsibility as a professional and a citizen • Evaluating ethical, socially responsible and/or sustainable challenges and generating and articulating

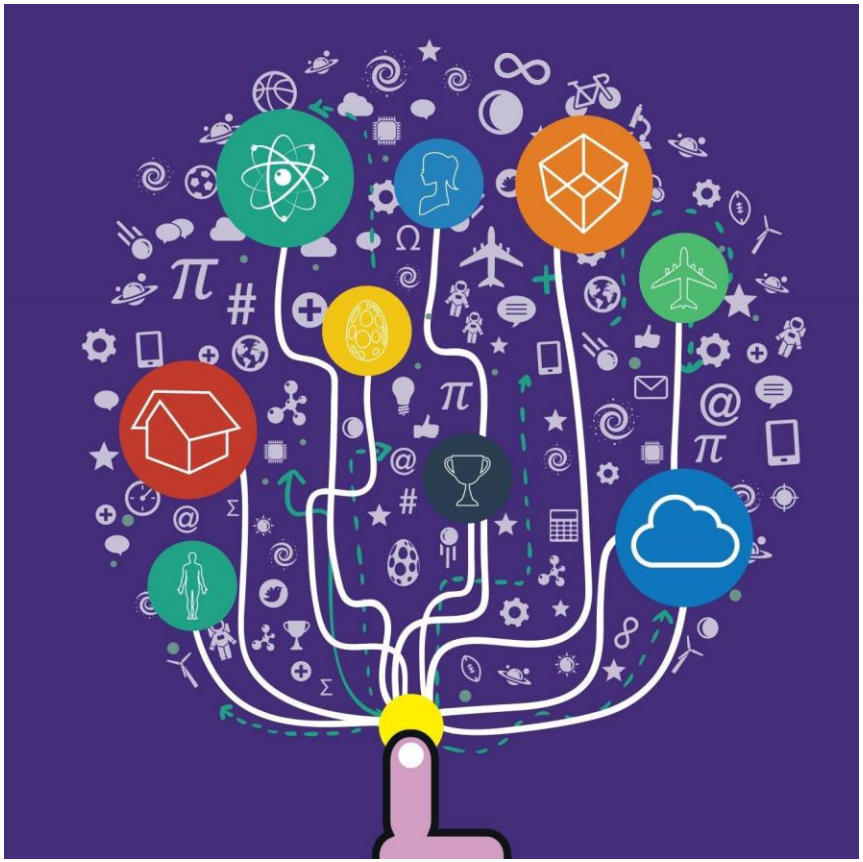
3. Federation University Australia Co-operative Model - Summary

- Meet needs of:
  - Students
  - Industry
  - Employers
  - Accreditation (where appropriate)

- Consider holistically at Course Level
  - Connections with industry throughout the degree
  - Co-operative Experiential Learning
  - Broad skills development

4. Case Study: Institute of Innovation, Science and Sustainability

- Disciplines
  - Business (some accredited)
  - Engineering (all accredited)
  - Information Technology (all accredited)
  - Science



- Initial MiCS Mapping - Professional Development sessions
  - 6 sessions for Course Coordinators/Discipline Leaders
  - 14 sessions for Unit Coordinators
  - Numerous 1:1 meetings with learning designers

Minimum Cooperative Standards (MiCS) mapping

- Initial (baseline) mapping for MiCS
- Completed via self-assessment
- Institute of Innovation, Science and Sustainability (IISS) statistics
  - 41 courses
  - 354 units

Course Ratings

Example of Course Level Mapping using unit data

Data from the course tab fills into the corresponding column in the Course Ratings table in the Program Tab.

	Course2	Course4	Course5	Course6	Course7	Course8	Course9	Course10	Course11	Course12	Course13	Average (total for criteria 6 and 7)	
MiCs Criteria	HEMTL6001	HEMTL6003	HEMTL6004	HEMTL6005	SUHEA6003	HEALT6001	HEALT6002	HEALT7002	HEALT7003	HEALT2004	HEALT7005	MiCs Rating for Program	Max rating
Criteria 1a - Co-Design with Industry	3	3	1	3	0	0	1	0	0	0	0	1	5
Criteria 1b - Co-Design with Students	2	2	1	1	0	1	0	0	0	1	1	0.8	5
Criteria 2 - Co-Develop with Industry	4	4	1	3	2	1	0	0	0	0	0	1.4	5
Criteria 3 - Co-Deliver with Industry	2	2	1	3	3	0	0	0	0	0	0	1	5
Criteria 4 - FedTASK	0	0	0	0	0	0	0	0	0	0	0	0	1
Criteria 5 - Workplace and Career prep	0	0	0	0	1	0	0	0	0	0	0	1	5
Criteria 6 - Authentic assessment (average rating for assessments that are authentic -rated 1 or above)	1	1	1	2	2	1	0	1	1.5	2.7	4	1.6	5
Total assessment count	3	3	4	4	3	2	3	1	2	3	2	30	
Total authentic (1 and over)	2	2	3	3	3	2	0	1	2	3	2	23	
Criteria 7 - Industry facing experiences	0	0	0	0	0	0	0	0	0	0	0	0	

Minimum Cooperative Standards	Institute of Innovation, Science and Sustainability PRELIMINARY findings (Sept 2023)
Co-design with industry	• Generally low • Some good examples
Co-design & co-develop with students	• Very little
Co-develop with industry	• Higher engineering, some IT • Low Science
Co-delivery with industry /community	• Eg. specialist topics, attendance and participation in fieldtrips, engaging with real-life industry focussed capstone projects • Higher in Masters programs
FedTASK embedded **(Transferrable Attributes, Skills and Knowledge)**	Minimal – plan to map late 2023
Authentic assessment	• Increases through the course • Project courses
Career preparation	Currently lacking – in 2024 introduce COOP102X Professional Identity: preparing for work
Industry facing experiences – in, with or for industry	• Opportunities in all degrees • High - BIT(Professional Practice), Engineering (12 weeks), Industry Placement Program; fieldtrips.

Every Federation Co-op undergraduate degree will have (updated):

- *Foundation workplace skills* as well as the technical skills to prepare students for their future careers
- At least ***60 days*** of industry facing experiences that contributes directly to course credits and graduation (block or part-time)
- Paid placement *(where possible)*
- Career preparation unit
- Students will *connect* with local and international opportunities
- Students can have certainty that *employers and industry leaders have endorsed that the course* or unit they are studying, is what they really need to succeed

Co-op Placements: How will they work?

- Cognate
- Competitive application and interview process
- Determine and agree to Learning Outcomes
- Co-op placements requires joint assessment with industry and academic

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In 2024, Co-op offerings include:

Bachelor of Business (BH5)

Bachelor of Engineering (EG8) – all streams

Bachelor of Information Technology (CT5) - all streams

Bachelor of Information Technology (Professional Practice) (CI5)

Bachelor of Science (SC5)

5. Proposed changes at Course Level – Implementation of Co-Op Model within IISS

Engineering - Hackathon

- Manufacturing and Thermofluids & Thermodynamics units
- industry wide partner and experts
- Students work in teams to find solutions to industry wide problems

IT - Authentic assessment

- Big Data and Analytics unit
- Design and implement a relational database for case they are familiar with e.g. sporting, leisure, work

Other

- Simulations, fieldtrips, guest speakers, industry projects

References

- 2022 CEWIL Canada Data Report
- Karsten E. Zegwaard, & T. Judene Pretti. (2023). *The Routledge International Handbook of Work-Integrated Learning*. Routledge.
- Federation University Co-operative Model

Thanks are extended to

- All Institute of Innovation, Science and Sustainability staff
- Staff from Centre for Academic Innovation (formerly CAD)

- For further information contact:

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Abstract:

The Federation University Australia Co-operative Model is a unique approach that puts students at the heart of education and industry with ongoing connections to industry throughout their degree. This session will explore the implications of the Co-Operative (Co-Op) University Model on traditional curriculum structures. Discover how the Co-Op model challenges conventional approaches to education, fostering a symbiotic relationship between academia and industry. Lara will unravel the impact on students' learning experiences, workforce readiness, and the broader academic ecosystem.