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THE NATIONAL GEOSPATIAL CONFERENCE

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FIG **Geospatial**
Council of Australia

Collaboration, Innovation and Resilience: Championing a Digital Generation

Brisbane, Australia 6-10 April

The Promise of Project Based Learning for Surveying Educators

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Project Based Learning

- Bridges the gap between Industry expectations of work-ready graduates and Academic Institutions desires for research performance and status
- Project based capstone course in the final year of a program
- Different project every year
- No lectures, no exams – student led – Educator acts as a client
- Students elect a Managing Director and Deputy
- Students run meetings, allocate action items. Chair and Secretary rotated every week = Soft skills.
- Students work as one large group – maintains morale, engagement and motivation - **All in it together!**
- Students decide on suitable communication platform (Google docs, WhatsApp, FB messenger etc)
- Course coordinator supports every step of the way



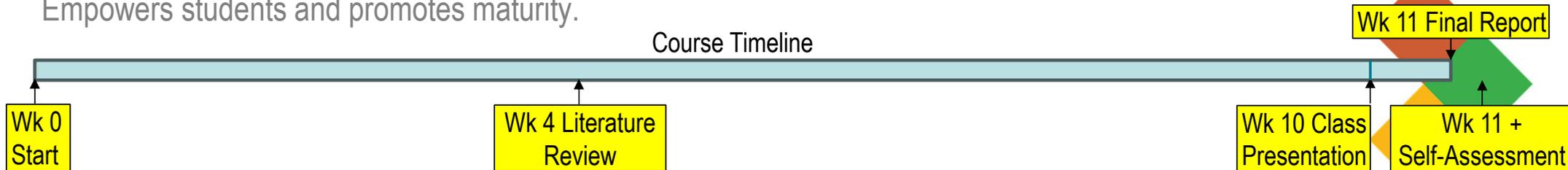
Design of a Project Based Course

- A large, complex project should be designed with many elements such as research, planning, field work/ data collection, processing, analysis and reporting.
- Seek to use cutting edge and innovative techniques to realise the project outcome.
- Fit within university constraints = Timetabling, assessment requirements, other admin.
- Consider: weather (season), travel (ie on-campus, off-campus day trip/ multi-day), cost, logistics
- Consider: Number of students, skills of students, access to equipment and site.
- Choosing a suitable topic:
 - Research Based – partner with researchers to help solve a problem
 - Industry Based – partner with industry to utilise latest equipment/ techniques
 - Community Based – partner with community organisations for site access and to provide deliverables

Assessing a Project Based Course

- **Literature review (30%):** Group report, 4-week timeline, chance to revise topic areas, propose a project plan, WHS, students allocated different areas, students appoint editors to produce professional doc – use templates and style guides, educator must provide feedback within a week or two for scaffolding.
- **Class Presentation (10%):** One large narrative. All students present their parts, and see the whole project. Opportunity to invite colleagues from your school, faculty, other students and industry.
- **Final Report (50%):** Group effort -individual sections. Write for surveyors to use. Cheat sheets. Templates/ style guides/ editors. Feedback from Lit rev informs a more professional outcome. Use correct referencing.
- **Self-Assessment (10%):** Senior students reflect on their performance. Consider their professional life as a graduate supervising staff. Students allocate themselves a mark based on their perceived performance. Very honest feedback. Empowers students and promotes maturity.

Course Timeline





Cong



Concluding Remarks

- Project-based learning gives surveying educators the freedom to explore ambitious projects.
- Projects could further their own research, work closely with industry or support a community organisation.
- Students run the project = Far more engaged. Students feel empowered!
- Projects allow educators to upskill themselves in new tech, software and techniques.
- Project-based courses require energy, creativity, agility and commitment.
- Project-based courses provide great opportunities for outreach and marketing of the profession to potential new students.

CHOOSE YOUR OWN ADVENTURE®

The most important SDG is POPULATION and is ignored by the UN

1st relevant SDG

4 QUALITY EDUCATION



2nd relevant SDG

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



3rd relevant SDG

17 PARTNERSHIPS FOR THE GOALS



SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals



WORKING WEEK 2025

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STEP 1: SELECT HERE THE THREE MOST RELEVANT SDGs
STEP 2: COPY THE SDG INTO PREVIOUS SLIDE

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	