Enhancing employability and career aspirations in high achievers

Bachelor of Science (Advanced Science) Honours
Sonia Ferns
NPSC2001 Research, Leadership and Entrepreneurship in Science 1

- Second year unit in Bachelor of Science (Advanced Science) (Hons)
- Full year unit - 50 credits
- Students study 6 discipline specific units across the year
- Multiple disciplines: Chemistry, physics, computing, coastal land marine, data science, environmental science, molecular genetics
- Unit Coordinator plus discipline-based supervisors
- Weekly sessions with scheduled workshop sessions
- Lots of individual meetings
The Student Cohort

- 45 students
- High ATAR, high achieving
- Motivated and driven to succeed
- Some mature aged, variety of backgrounds
- Different discipline foci
- Varying types of discipline-based approaches
- Small female cohort
Focus of learning and development

- Scientific leadership
- Defining and scoping scientific problems to develop practical or theoretical solutions
- Building research capacity
- Industry engagement, networking
- Project planning
- Evidencing skill development for career aspirations
- Communicating scientific outputs to a diverse audience
Intent of the unit

- Autonomy
- Networking, building relationships
- Decision-making
- Linking development, evidence and capabilities
- Professional identity
- Working in diverse contexts
- Transferability of skills and capabilities
What I did

- Individualised approaches - personalised outcomes
- Self-assessment - strengths and areas for improvement
- Case studies as evidence of capabilities
- Role playing
- Two minute pitches - self-promotion and project overview
- Interdisciplinary collaboration
- Activities on professional identity
- Networking strategies - promoting events
- Receiving feedback and responding, giving feedback - peer collaboration
- Shared ‘wisdom’
- Related to the broader context of STEM skills and knowledge
- Negotiated roles and responsibilities
- Reflection
- Digital footprint - portfolio
- Confidence, clarity and curiosity
- Resilience

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What I would do differently

- Weekly workshops - regular connections to build rapport
- Improve communication strategies with discipline-based supervisors
- More assistance and support with shaping up projects early in the year
- Assessment one: blueprint for project
Student video: permission Austin Guthrie

https://drive.google.com/open?id=1playA5z0CPYf7E1VWKQmoZ5emiHqdsXd
Outstanding outcomes for all stakeholders

Industry Showcase Event on Tuesday 5th November
Photography Fatma Sehic

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What is XSS?

Cross site scripting is a type of web application vulnerability, where a malicious user can inject code into the webpage. There are three types of XSS:

1. **Type 1: Persistent**
   - Happens when user input is stored in a database.
   - If user inputs malicious code, it will be served.
   - When that input is retrieved, code will be executed.

2. **Type 2: Reflected**
   - Happens when user input is neverly inserted in error message, or error result.
   - A request is sent then user enters input.
   - The request will be made to the browser and eventually will a response to the user, after the script has run.

Detection and Prevention Methods:

- **Static Analysis**
  - Discovered by looking at 'script' elements
- **Dynamic Analysis**
  - Discovered by looking at 'script' elements

My Project for this unit was to create a cross platform web application that would be sold commercially.

During this project I developed my workplace skills, my ability to work with teams and develop a design. Through research and discussion with my tutor and colleagues I was able to produce a project which was suitable for the needs of the company.
Questions and comments