Course Outline (Higher Education)

School: School of Science, Psychology and Sport

Course Title: SCIENTIFIC COMMUNICATION

Course ID: SCCOR1200

Credit Points: 15.00

Prerequisite(s): Nil

Co-requisite(s): Nil

Exclusion(s): (SCCOR2200)

ASCED: 019999

Description of the Course:

Science Communication provides students with an opportunity to develop essential communication skills through a range of carefully scaffolded authentic science communication tasks. Throughout this course students will have multiple opportunities to develop both their written and oral communication skills and will learn how to present complex scientific ideas to a range of diverse audiences. After successfully completing this course, students will be able to use scientific reporting and grammatical conventions; record and present scientific information in an appropriate format; interpret and explain experimental data; search the literature to locate relevant, credible sources of scientific information; cite and reference appropriately; construct reference lists and bibliographies; prepare and deliver written and oral reports; detect and avoid plagiarism.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

Program Level:

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory			✔			

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Intermediate						
Advanced						

Learning Outcomes:

Students undertaking this course are expected to be able to demonstrate the following knowledge and skills.

Knowledge:

K1. Recognise the grammatical conventions used in scientific and technical reports.

K2. Explain the need for appropriate attribution of the work and ideas of others.

K3. Discuss the nature and consequences of plagiarism.

K4. Identify key features of effective communication in science.

K5. Recognise that scientific knowledge is both contestable and testable by further inquiry

Skills:

S1. Use software tools to create reference databases.

S2. Locate relevant, credible sources of scientific information; cite and reference these sources appropriately.

S3. Design and deliver effective oral presentations, tailored to a particular audience.

S4. Write professional letters, memos, reviews and reports using correct structure, grammar and spelling.

S5. Use appropriate technology to facilitate group work, written work and effective communication.

Application of knowledge and skills:

A1. Demonstrate effective communication of scientific ideas to varied audiences in a range of relevant formats.

A2. Apply effective time management skills to meet project deadlines.

A3. Exhibit strategies for working effectively in groups.

Course Content:

Scientific Communication explores the fundamental role that effective communication has in science, with a key focus on students developing quality communication skills to enhance their university learning experience. Students gain experience in effective writing, delivering oral presentations, adapting communication strategies to an audience, using appropriate technology, time management, working in groups and working independently.

Topics may include:

- Communicating scientific concepts: Styles and strategies
- Written communication: writing styles, grammatical conventions
- Identifying and evaluating sources of scientific information
- Citing and referencing
- Recognizing and avoiding plagiarism
- Reviewing, editing and tracking documents
- Visual representations of scientific information
- Effective oral communication techniques
- Working in groups: communication, collaboration and collusion
- Reflection, evaluation and feedback
- Time management

Values:

V1. Appreciate that learning and self-development are one`s own responsibility.
V2. Appreciate that learning and self-development is a lifelong practice.
V3. Appreciate that effective communication is fundamental to science.

Graduate Attributes

The Federation University Federation graduate attributes (GA) are entrenched in the Higher Education Graduate Attributes Policy (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each program**

Graduate attribute and descriptor		Development and acquisition of GAs in the course	
		Learning Outcomes (KSA)	Assessment task (AT#)
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K4, K5	AT3
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	Not applicable	Not applicable
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	K3	AT2
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	K1, K2, K4, S3, S4, S5, A1	AT1, AT2
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	A3	AT1

Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1- K5, S1-S5, A1-A3	Formal scientific communication tasks	Written and / or oral presentation(s)	20-40%
K1-K5, S1-S5, A1-A3	Academic research and writing tasks	Written reports, tutorial activities, quizzes	20-40 %
K1- K5, S1-S5, A1-A3	Research task aligned with scientific discoveries	Contemporary scientific communication task	30-50%

Adopted Reference Style:

Australian Harvard

Refer to the library website for more information

Fed Cite - referencing tool