Subject Name: Foundations of Critical Enquiry
Subject Code: SOCQ1

SECTION 1 – GENERAL INFORMATION

Award/s: Undergraduate Certificate in Human Biology
Total Course Credit Points: 14
Level: 1st Year
Duration: 1 Semester
Subject Coordinator: Dr Paul Strube (Adelaide Campus)
Subject is: Core
Subject Credit Points: 2

Student Workload:

<table>
<thead>
<tr>
<th>No. timetabled hours per week:</th>
<th>No. personal study hours per week:</th>
<th>Total hours per week:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>5</td>
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</tbody>
</table>

Delivery Mode:
- e-Learning (Online)
  - Narrated PowerPoint presentations
  - Tutorials: Asynchronous tutor moderated discussion forum and activities
  - Student handouts, web-based resources
  - Full Time

Pre-requisites: Nil
Co-requisites: Nil

SECTION 2 – ACADEMIC DETAILS

Subject Rationale

The application of evidence to inform practice in health care requires an understanding of research designs and analytic methods, as well as traditional forms of knowledge. This subject introduces different types and methodologies of research and their strengths and weaknesses as related to the complementary medicine and health sciences. Students will be introduced to the significance of personal values and motivation in the research process. Students will explore the range of clinical research and research methods and become familiar with research literature in relation to specific therapeutic modalities, including the ethics involved, different approaches used, and the assumptions and underlying paradigms. Students will be able to appreciate the importance of the research question, the method appropriate for answering that question and the quality of the research process. This is a foundational subject for the later study of all degrees.
Learning Outcomes

1. Describe research paradigms and associated research design and methodologies taking into account traditional and contemporary research evidence.

2. Identify a professional practice area of interest or an issue and incorporate knowledge of the research process.

3. Describe the nature of research including the ethics involved, different approaches utilised, and the assumptions underlying these approaches.

4. Identify the key features in qualitative and/or quantitative statistical techniques appropriate to a particular research design.

5. Develop and articulate a clear structure of own research process.

Assessment Tasks

<table>
<thead>
<tr>
<th>Type</th>
<th>Learning Outcomes Assessed</th>
<th>Session Content Delivered</th>
<th>Due</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Question (500 words)</td>
<td>1 &amp; 2</td>
<td>1-3</td>
<td>Week 4</td>
<td>15%</td>
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<tr>
<td>Review of quantitative methodology (750 words)</td>
<td>3 &amp; 4</td>
<td>4-7</td>
<td>Week 8</td>
<td>30%</td>
</tr>
<tr>
<td>Review of qualitative methodology (750 words)</td>
<td>3 &amp; 4</td>
<td>4, 8 &amp; 9</td>
<td>Week 11</td>
<td>30%</td>
</tr>
<tr>
<td>Presentation of developed research process (3 minutes)</td>
<td>1-5</td>
<td>1-12</td>
<td>Week 13</td>
<td>25%</td>
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All written assessments and online quizzes are due at 11:55 p.m. Sunday and submitted through the LMS

Prescribed Readings:


Recommended Readings:


**Internet Resources:**


### Subject Content

<table>
<thead>
<tr>
<th>Week</th>
<th>Lectures</th>
<th>Tutorials / Practicals</th>
</tr>
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</table>
| 1.   | **Introduction** (Subject Outline / Subject Aims / Assessment / Teaching Resources)  
**Overview and expectations of the subject**  
- Types of knowledge and ways of knowing  
- Introduction to data based searching skills  
- The Four Fold Vision Quest included  
  | Activities are developed to allow the students to explore relevant concepts, expand on ideas and have peer and lecturer interaction. Activities also allow for formative assessment and feedback.  
- Four Fold Vision Quest workshop: “This is a secular meditation, designed to cultivate conative intelligence, inspired by principles of Buddhist psychology” (B. A. Wallace, personal communication, May 15, 2019).  
- Introduction to the assessments  
  |  
| 2.   | **Introduction to a discipline of inquiry; research problems and questions**  
- The importance of Epistemology  
- Scientific knowledge and the scientific method  
- Traditional use and evidence  
- Research approaches  
- Qualitative methods  
- Quantitative methods  
- Mixed Methods  
- The Hierarchy of Evidence  
  |  
| 3.   | **Introduction to competing paradigms**  
- Overview of Research Methodologies  
- What is Positivism?  
  |  
- Nature and purpose of ethical considerations  
- Evidence sourcing  
<p>|</p>
<table>
<thead>
<tr>
<th>Topics</th>
<th>Material</th>
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<tbody>
<tr>
<td>Positivist Research; what are its goals</td>
<td>Library Session online; narrated presentation</td>
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<tr>
<td>Positivist research; what are its basic assumptions</td>
<td>Referencing activity</td>
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<tr>
<td>Positivist Research; what are its methods</td>
<td></td>
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<tr>
<td>What is meant by Interpretivist?</td>
<td></td>
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<tr>
<td>Interpretivist Research; what are its goals</td>
<td></td>
</tr>
<tr>
<td>Interpretivist research; what are its basic assumptions</td>
<td></td>
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<tr>
<td>Interpretivist Research; what are its methods</td>
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4. **Introduction to Research Ethics**

- Ethics as a requirement for approved research
- Introduction to ethics and moral philosophy
- Ethics in research
- Key elements to consider in ethics
- Informed consent
- Confidentiality
- Minimise harms and risks and maximise benefits
- Respect human dignity
- Privacy and autonomy
- Vulnerable populations
- Strive to distribute the benefits and burdens of research fairly

5. **Evaluating Research validity and credibility**

- P values
- Confidence intervals
- Standard deviations
- Simple statistics
- Mean, median and mode
- Figures, charts and diagnostic tables

6. **Quantitative research methods I**

- Research Skill Development (RSD)
- Overview of the quantitative research process
- Writing research questions
- The Literature Review
- Methodologies
- Pilot Studies

7. **Quantitative research methods II**

- Quantitative research question
- Data Collection

Evidence sourcing
|  | Data analysis  
|  | Results  
|  | Conclusions of the research  
| NON-TEACHING WEEK (note that make-up classes may be scheduled in this week)  
**Online students** – The non-teaching week falls between Weeks 7 and 8  
| 8. **Qualitative research methodology I**  
| 1. Overview of the qualitative research process  
| 2. Writing qualitative research questions  
| 3. Answering qualitative research question  
| 4. Sampling  
| 5. Negotiating access  
| 6. Data collection  
| Student exercise in writing a qualitative research memo  
| Evidence sourcing  
| 9. **Qualitative research methodology II**  
| 1. Coding  
| 2. Content Analysis  
| 3. Thematic Analysis  
| 4. Interpretation  
| 5. Accuracy and Quality  
| 6. Criteria of Evaluation  
| 7. Evaluating the method  
| 8. Evaluating the Results  
| Student exercise in writing qualitative research question  
| Evidence sourcing  
| 10. **Considerations in Complementary and Alternative Medicine Research**  
| 1. Empathy and Insight  
| 2. Holistic perspective  
| 3. Context sensitivity  
| 4. Voice and Perspective  
| 5. Introspection and Reflectivity  
| Scenario based exercise: Assessing appropriateness of methods and research design  
| 11. **Data collection and research results in small scale studies**  
| 1. Case study:  
| o Phenomenological inquiry  
| o Narrative Analysis Hermeneutics  
| o Symbolic Interaction  
| o System Theory  
| Scenario based exercise: Case study  
| 12. **Research into Practice**  
| 1. Critiques of evidence based medicine  
| 2. Generating new insight:  
| The Four Fold Vision Quest included  
| Analyse research and interpret research results  
| Evaluation  
| The Four Fold Vision Quest workshop:  
|
“This is a secular meditation, designed to cultivate conative intelligence, inspired by principles of Buddhist psychology” (B. A. Wallace, personal communication, May 15, 2019).

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<thead>
<tr>
<th>13. Review &amp; Application of Subject Content</th>
<th>Oral Presentations</th>
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<tbody>
<tr>
<td>☐ The difference between efficacy and evidence</td>
<td></td>
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<tr>
<td>☐ Key message: A lack of evidence is not a lack of efficacy</td>
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<tr>
<td>☐ Research its benefits and drawbacks</td>
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<thead>
<tr>
<th>14. Non-Teaching Week/Practical Examination Week 1</th>
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<td>Note that make-up classes may be scheduled in this week</td>
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<tr>
<th>15. Non-Teaching Week/Practical Examination Week 2</th>
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<td>Note that make-up classes may be scheduled in this week</td>
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<th>16. Final Examination Week 1</th>
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<table>
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<tr>
<th>17. Final Examination Week 2</th>
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<td>There is no final exam for this subject</td>
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