LEVEL 1

This will ensure a solid foundation of knowledge for students transitioning to Higher Education.

The concepts are a foundation which will ultimately scaffold learners to achieve the relevant outcomes stated in the Otago Graduate Profile. (see Appendix). IS Librarians who provide research support to 100 level papers must include basic elements of the following skills:

Undergraduate students at 100 Level or equivalent will have a basic understanding / awareness of:

1.1 The concept of popular vs scholarly publishing

1.2 The use of information beyond a given reading list adds credibility to an assignment

1.3 Basic research tools and their strengths and weaknesses, including the Library homepage, Library Search | Ketu, and Course Reserve

1.4 The relevance and appropriateness of different information sources for different purposes

1.5 The basics of effective keyword searching

1.6 The ethical use of information (e.g. University Guide to Academic Integrity)

1.7 The location of the physical libraries and basic services which are on offer.
LEVEL 2

Students have understood and used some of the research skills identified in Level 1, and will begin to demonstrate competency in specific areas.

Undergraduate students at 200 level or equivalent should be able to:

2.1 Use relevant and appropriate information sources, including print, online and multi-media when required e.g. Library databases, blogs, Wikipedia, news channels video, primary sources

2.2 Understand the difference between a search engine and a Library-provided database

2.3 Understand the importance of evaluation of information sources using basic resources

2.4 Understand how to search the web effectively using basic search techniques

2.5 Demonstrate a working knowledge of one citation style appropriate to the needs of an assignment

2.6 Demonstrate the knowledge and skills to use information ethically

2.7 Demonstrate basic understanding of the importance of a search strategy
LEVEL 3

Students should now have research skills which will enable them to be effective users of information in the workplace or as emerging postgraduates. They will have the skills to find, evaluate, interpret, manage, and use information to answer questions and develop new ones using a variety of sources. These skills are fundamental to lifelong learning.

Undergraduate students at 300 level or above will have the knowledge and skills to:

3.1 Understand that research is part of a scholarly process which is continuous and constantly shaping and reshaping a body of specialist knowledge

3.2 Demonstrate competence in the use of the citation style required by the department

3.3 Understand the complexities of academic integrity, especially if working online or in a group

3.4 Understand the concept of a bibliographic management system (e.g. EndNote)

3.5 Search for information effectively, using a variety of sources, and understand the relevance and appropriateness of those sources

3.6 Assess the relevance and usefulness of the information obtained, and use it effectively.

3.7 Reflect critically on a search strategy and re-frame this as required.
LEVEL 4
The Postgraduate (including Honours) student will have the knowledge and skills to:

4.1 Search for information effectively, using a variety of platforms, and understand the relevance and appropriateness of those platforms

4.2 Understand the importance of their place in the research cycle and its contribution to a discipline-specific knowledge base

4.3 Use a bibliographic management tool, and be able to apply it to complete their own research

4.4 Understand the ethics which underpin the concept of intellectual property / rights management (including copyright) and academic integrity

4.5 Understand the peer review process and the difference between the traditional publishing model and the Open publishing models

4.6 Understand the different types of Open publishing scenarios and their implications

4.7 Understand the potential problems associated with third party copyright and publishing (especially in OUR Archive)

4.8 Understand how to reflect critically on a search strategy and re-frame it when necessary with the understanding that the search process may be evolutionary and non-linear

4.9 Use appropriate tools to keep up to date with the literature on a given topic

4.10 Understand the importance of managing data effectively, including the need for a data management plan when appropriate

4.11 Use research tools and resources which are specific to their discipline.
LEVEL 5: ACADEMIC RESEARCH SUPPORT

The following information and support should be offered by IS librarians as and when required. Some academics may only require specialised assistance in one area (e.g. data management) or at a particular time (e.g. the lead-up to PBRF). Level 5 support will also be available to PhD candidates where appropriate.

5.1 Research measurement:
- Journals - Journal Impact Factor (JCR) and its strengths and weaknesses; other journal ranking and impact metrics e.g. SJR, SNIP, Eigenfactor
- Authors - citation counts; finding/calculating an H-index; use and relevance of Altmetrics
- Articles - citation counts; use and relevance of Altmetrics
- Other research outputs - metrics for books and other publication formats

5.2 Data management - effective data management; how and when to write a data management plan; external data management/long term storage solutions (nationally and internationally)

5.3 Networking and collaborating - relevance of Virtual Research Environments (VREs) within different disciplines; researcher networks e.g. Academic.edu, Research Gate

5.4 Scholarly communication - OUR Archive; traditional journal publishing options and Open Access

5.5 Researcher profiles & identity control - author identifiers e.g. ORCID, Researcher ID