

Task Summaries from Course Handbook

5.3.4 Population Analysis Assessment Task

Full details of this assessment task, including assessment criteria and the marking rubric, are available in the Task Instructions document on MyUni.

5.3.4.1 Aims:

The broad focus of this assessment task is twofold, to provide opportunities to:

1. Undertake a scientific investigation involving collection of data about a population, its manipulation into a life table and subsequent analysis of experimental design and validity of results, and
2. Analyse human population characteristics (e.g. age-related mortality patterns) in order to gain an understanding of the basic concepts of population demography, how population characteristics change over time, and factors that influence population change.

Through the successful completion of the task each student will: -

1. Apply scientific method in the investigation of human population dynamics.
2. Learn about methods of data collection and their limitations, e.g. biases arising from sampling techniques and difficulties/limitations in data interpretation arising from collection methods.
3. Develop skills in the manipulation of data sets via the construction of life tables, and survivorship and mortality curves (graphs).
4. Investigate/research factors that shape the composition and dynamics of human populations.

5.3.4.2 Resources and Requirements for Task:

Each student is required to collect data on the age at death of individuals within a specific population of their choice, either via visiting a cemetery or retrieving appropriate records from a population database or registry. Students within the class should investigate populations from different time frames and/or localities.

5.3.4.3 Summary of Task:

The assessment task involves collection of demographic data for a specific population of humans and its manipulation into life tables. Life tables (generated by individual students) from a variety of populations will then be compared and analysed to determine whether population characteristics have changed over time, or vary according to environmental influences. A critical evaluation of experimental design that includes identification and discussion of specific limitations and biases and their implications for validity and interpretation of results will also be completed.

5.3.5 Group Research Project

Full details of this assessment task, including the assessment criteria and marking rubric, are available from the Group Research Project Instruction Wiki on MyUni.

5.3.5.1 Rationale and Aims:

The rationale for inclusion of the Group Research Project in assessment of Human Biology IB is threefold.

1. The health sector requires collaboration from a range of providers/practitioners in the delivery of health services. Hence it is essential that prospective employees in this sector have the skills to work closely and effectively with other people. The random allocation of students to a group simulates a dynamic similar to what might be encountered in the workplace, and hence provides an opportunity for individuals to develop the skills necessary for effective interactions and efficient management and completion of a task in a relatively low risk environment.
2. The delivery of health information to the wider public requires that a clear, concise and focused message be communicated. Preparation of a poster and a short power point "advertisement" for the poster is an effective way of encouraging concise, focused communication of key ideas and findings.
3. Interactions with other health professionals and/or clients of health services often require resolution of conflict or response to criticism, hence an ability give constructive feedback and appropriately respond to criticism is a necessity for maintenance of professional conduct.

The aims and objectives of the Group Research Project are to:

- Provide an opportunity for in depth investigation of an aspect of human biology.
- Enable the development of scientific curiosity through interactions with peers in the pursuit of knowledge.
- Develop skills in critical analysis through providing and responding to peer evaluation of their and others' project

work and group management strategies.

- Demonstrate effective written and oral communication using a range of formats.
- Develop and demonstrate interpersonal skills.
- Develop and demonstrate effective time management skills through coordination of activities and cooperation between students to meet imposed deadlines for a multifaceted task.

5.3.5.2 Resources and Requirements for Task:

Students will be allocated to a research group in MyUni and will need to agree on a topic for their research from a list provided. Each group will have access to group tools including a wiki, email, group journal, file exchange and blog for communication and documentation of their group work. Full instructions for the task, resources and links to other information to support the project are provided in the "Group Research Project Instruction Wiki" on MyUni.

5.3.5.3 Summary of Task:

Groups of students will demonstrate their ability to undertake high quality collaborative research on a topic related to Human Biology. They will assign groups roles and manage all activities related to the overall research task including:

- Documenting all interactions among members in managing the project, conducting the research and completing all aspects of the task
- Finding and critically evaluating scientific information relevant to their topic
- Constructing a "Wikipedia-style" information page on their topic
- Selecting a specific aspect of their topic to present in depth as a scientific poster
- Succinctly communicating the key message of their in depth research via a 3-slide PowerPoint presentation
- Participating in, and responding to, peer evaluations of other student groups, prior to summative assessment.

Group research outcomes will be communicated at a student organised Research Showcase event in week 10 of semester.