

ERS 475/675 *Experiential course in Ham Radio: Technics, Ecology and Culture of Amateur Radio in the 21st Century*

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Room: EV2 2009

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Overview

Become a ‘radio ham’. Whether as a hobby or as a necessary skill for bush-pilots or wilderness guides, by earning your basic operating license you will become part of a communications network that is still a necessary backstop for the emergency services in times of crisis or environmental catastrophe (when mobile and Internet networks are liable to fail). This course will consist of two parts: (1) A five-day intensive immersion leading to the Basic Qualification Exam offered by Industry Canada; and (2) a two-day workshop exploring the continuing role of amateur radio in the 21st century. There will be a small course fee of \$100 to cover the cost of the external provider.

1. **Certification Course:** This will consist of an introduction to amateur radio covering theory and practical operation, within the scope of the Basic Qualification Exam offered by Industry Canada. The material will cover: radio regulations and legal requirements in Canada; introductory analog circuits; transmission lines and antennas; electromagnetic waves and wave propagation; an overview of active devices for signal processing, including transistors and vacuum tubes; the theory and operation of radio transmitters and receivers. The course will cover routine operation and procedure when working an amateur radio station, including safety and troubleshooting.

This experiential component will be delivered by an external provider

2. **Theoretical and social-ecological context:** As a defining technology of the 20th century, radio facilitated: state-building; the coordination of sophisticated military organizations; the development of aviation; the consolidation of national ‘imagined’ communities; the development of popular culture and particularly the emergence for the first time in human development, youth

culture and the category of ‘youth’ as a significant dimension of psychological development and social-political organization. The two-day seminar will explore these issues, with an emphasis on the relevance and uses of amateur radio in the twenty-first century.

Evaluation:

ERS 675:

- 1 x 3000-word essay on topic agreed with the supervisor [70%] [Due: August 10th]
- Annotated bibliography of ten books and/or articles on the course reading list [15%] [Due: July 30th]
- 1 x personal reflection on your own interest in becoming a radio ham (personal interest, professional development?) [15%] [Due: June 2nd]

ERS 475:

- 1 x 2000-word essay on topic agreed with the supervisor [75%] [Due: August 10th]
- Annotated bibliography of 5 books and/or articles (1000 words) on the course reading list [15%] [Due: July 30th]
- 1 x personal reflection on your own interest in becoming a radio ham (personal interest, professional development?) [25%] [Due: June 2nd]

Professional certification:

Multiple choice examination to be held on one day soon after the intensive practical course. This is not part of the academic evaluation. The practical instructor will be arranging for a government licensed examiner to come in for this purpose.

COURSE SCHEDULE AND DATES:

DATE	ACTIVITY
May 1 st –June 1 st	Preparatory study for practical course [Course book and materials on LEARN] Work on personal evaluation
June 2 nd	Personal reflection: Submission on LEARN
June 4 th -10 th	Intensive practical course
June –Date TBC	Practical exam

July – Dates TBC	2-day theoretical workshop
July 30 th	Submission of annotated bibliography
July-August	Work on essay; consultations with course leader
August 20 th	Essay submission

Reading:

Students will buy one textbook which has to be confirmed. Other readings will be available in the university library and on LEARN