

Graduate Module Course

Dr. Jim Duston jduston@dal.ca

Title: Chronobiology

Semester: Winter 2016

Timing: 4 weeks. Around Jan 18, 2016 to February 12

Format: 1h class sessions, twice weekly.

Marks breakdown: Written paper (50%), Oral presentation based on written paper (25%), Exam (25%)

Outline

Periodicity in the environment and in the organism. Free-running rhythms: circadian, circatidal, circannual. Endogenous clocks and their entrainment. Applications: Improving health and productivity in food production and human health.

Written paper: Based on the organism the student is studying. Written as a research proposal. Includes a literature review that establishes the state of knowledge and identifies an area of uncertainty. State a hypothesis and how it could be tested (budget unlimited!), explaining the experimental approach and design, and time frame.

Exam: Short questions and answers based on material presented by J. Duston in class.