EOS 314: Physical Oceanography Laboratory
Fall 2024

In EOS 314, we are interested in water column properties. The final project for 314 will involve looking at Saanich Inlet and surrounding waters and discussing why we see what we do. This lab is designed as a tutorial to help you with data analysis and presentation for your project.

Labs begin the week of Monday September 9th. The first part of each lab will be a guided tutorial covering the material. The rest of the lab time will be dedicated to working on your assignment. You may work collaboratively, but everyone must hand in their own assignment. Your attendance during these sessions is not mandatory, but it is time when your TA is available to help you. An online discussion forum in Brightspace will also be available where you can ask for help (or help others) with their code. You may work collaboratively, but everyone must hand in their own assignment.

Assignments are due to the designated assignment dropbox on the 314 Brightspace page at 4pm the day before the next official lab period (i.e. Sundays at 4 pm for B02, Tuesdays at 4pm for B01).

Lab Schedules:

B01 (Wednesday, 2:30-5:20)

Date	Lab Exercises
Weds Sept. 4th, 2024	First week of classes – no labs
Weds Sept. 11th, 2024	**Lab 1:** Introduction to MATLAB
Weds Sept. 18th, 2024	**Strickland Cruise I / Lab 2:** Times and Graphs I
Weds Sept. 25th, 2024	**Strickland Cruise II**
Weds Oct. 2nd, 2024	**Lab 3:** Times and Graphs II
Weds Oct. 9th, 2024	**Lab 4:** Regional Conditions I
Weds Oct. 16th, 2024	**Lab 5:** Regional Conditions II
Weds Oct. 23rd, 2024	**Lab 6:** The Vertical Realm
Weds Oct. 30th, 2024	**Lab 7:** Saanich Time Series Data
Weds Nov. 6th, 2024	**Project Orientation** (required)
Weds Nov. 13th, 2024	**Reading Break** – no lab this week
Weds Nov. 20th, 2024	Open; TA available; work on final project
Weds Nov. 27th, 2024	Last week of classes; Open; TA available; work on final project

B02 (Monday, 5:30-8:20)

Date	Lab Exercises
Mon Sept. 2nd, 2024	First week of classes – no labs
Mon Sept. 9th, 2024	**Lab 1:** Introduction to MATLAB
Mon Sept. 16th, 2024	**Strickland Cruise I / Lab 2:** Times and Graphs I
Mon Sept. 23rd, 2024	**Strickland Cruise II** / **Lab 3:** Times and Graphs II
Mon Sept. 30th, 2024	Day for Truth and Reconciliation – no lab
Mon Oct. 7th, 2024	**Lab 4:** Regional Conditions I
Mon Oct. 14th, 2024	Thanksgiving – no lab
Mon Oct. 21, 2024	**Lab 5:** Regional Conditions II
Mon Oct. 28th, 2024	**Lab 6:** The Vertical Realm
Mon Nov. 4th, 2024	**Lab 7:** Saanich Time Series Data / **Project Orientation** (required)
Mon Nov. 11th, 2024	**Reading Break** – no lab this week
Mon Nov. 18th, 2024	Open; TA available; work on final project
Mon Nov. 25th, 2024	Last week of classes; Open; TA available; work on final project

Laboratory Personnel:

Senior Laboratory Instructor: **Eva MacLennan** (evamegan@uvic.ca)
Teaching Assistants: B01: **Becky Brooks** (rebeccaabrooks@uvic.ca)
B02: **Jamie Daniel** (jamiedaniel@uvic.ca)

Lab Manual / Resources:

There is no printed lab manual for this course. All materials will be posted on the lab website: **http://web.uvic.ca/~evamegan.** You will need your Netlink ID and password.

MATLAB and required technical resources:

You need access to MATLAB to complete these lab exercises. MATLAB is installed on all computers in the SEOS Computer lab (BWC B120), but if you prefer a copy on your personal computer, installation instructions are available at:
https://www.mathworks.com/academia/tah-portal/university-of-victoria-31110150.html

Alternatively, if you are unable to install MATLAB on your personal computer, you can access MATLAB Online by signing up for a Mathworks account with your UVic email address:
https://www.mathworks.com/products/matlab-online.html

MATLAB tutorials are available online at:
http://www.mathworks.com/access/helpdesk/help/techdoc/
http://www.mathworks.com/academia/student_center/tutorials/launchpad.html
http://www.mathworks.com/academia/students.html
You will also need the "common" directory, available from Lab 1, in order to complete the lab tutorials. This folder contains functions and colormaps that do not come with the standard MATLAB installation.

Course Grading Scheme:

Lecture Component: see syllabus

Laboratory Component:

Weekly Lab Exercises: 20%
– Labs 2 – 6 are evenly weighted
– Lab 1 counts as ½ lab; Lab 7 counts as 1.5 labs
Final Project – Saanich Data Analysis Project 30%

Lab Policies:

Lab assignments are due at the date/time specified in the schedule. Late assignments are subject to a 10% per day penalty. All requests for extensions must be emailed to the SLI (**evamegan**@uvic.ca). Labs may only be excused for approved medical or family reasons or UVic Athletics commitments. You must get in contact with the SLI within one week of the absence for consideration for accommodation.
Your final cruise report will be due during the exam period (date TBA). This report is a required part of the class and must be handed in for you to complete the course. The cruise report is based on the data collected in Saanich Inlet, supplemented with regional data from VENUS, and the local weather.

Late policy for the report is -10% per day, including weekends.

Important COVID-19 Information:

If you feel unwell, please stay home to limit the spread of infectious diseases. Please contact your SLI (evamegan@uvic.ca) as soon as you can to discuss your situation. Note that if you are unable to complete your coursework (or miss a major test) you will need to request an academic concession or deferral.