



RESTRICTIONS ON ENROLLMENT (if any)

14. PREREQUISITES

Completion of DEVM 105 or placement in higher

These will be *required* before the student is allowed to enroll in the course.

15. SPECIAL RESTRICTIONS, CONDITIONS

16. PROPOSED COURSE FEES

\$100 on campus
\$250 off campus

17. PREVIOUS HISTORY

Date

7/7/20

[Handwritten Signature]
Signature, Dean, [Redacted]

Signature of Provost (if above level of approved program)

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Date

Signature, Dean, College/School of:

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ATTACH COMPLETE SYLLABUS (as part of this application). This list is online at:
<http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/>
The Faculty Senate curriculum committees will review the syllabus to ensure that each of the items listed below are included. If items are missing or unclear, the proposed course (or changes to it) may be denied.

SYLLABUS CHECKLIST FOR ALL UAF COURSES

During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout

NUMBER: CHEM 114Y (on campus CBN: TBD; Distance CBN: TBD)

CREDITS: 3
PREREQUISITES: DEVM 105 or higher placement

...the health care system... the health care system... the health care system...

ecosystem health.

...ecosystem health... ecosystem health... ecosystem health...

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...ecosystem health... ecosystem health... ecosystem health...

will comprise 2 on-campus and 1 distance students) will generate lab-based replicate data sets of surface water quality data from communities across the state. Student groups will work closely and engage in peer mentoring (some students will develop expertise on the field site while others develop expertise in instrumentation) and build a community of learners across the state of Alaska

COURSE SCHEDULE

See attached.

COURSE POLICIES

- Safety hazards, particularly:
 - Data interpretation and statistical observations
 - Neutralization of acids and bases

'Week 2 – Air Quality

Reading: Environmental Science, Ch 3, 25

Case study: Bear Trouble

• [Case study: Bear Trouble](#)

• [PSPLIT modeling of air plumes](#)

• [NH₄ trapping in plumes](#)

1. [Introduction](#)

2. [Background](#)

3. [Methods](#)

4. [Results](#)

5. [Discussion](#)

6. [Conclusions](#)

7. [References](#)

8. [Appendix](#)

9. [Acknowledgements](#)

10. [Contact Information](#)

11. [Supplementary Materials](#)

12. [Data Availability Statement](#)

13. [Ethics Statement](#)

14. [Conflict of Interest](#)

15. [Publisher's Note](#)

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Case study: PCBs in salmon causing accumulation in spawning lake sediments

Lab 7: Contaminant Partitioning

- Contaminant partitioning in the environment

Week 8– Weathering and Soil Formation

Reading: Environmental Science, Ch 19, 23

Case study- How permanent is permafrost?

Lab 8: Weathering and Soil Formation

- Rocks into soil
- Exploring Alaskan soils

Reading: Environmental Science, Ch 24

Case study – Pebble mine: Tension between mineral recovery, fishing, and community health

Lab 9: Soil Quality and Contamination

- Soil contamination
- Treating acid mine drainage

Week 10 – Environmental Microbiology I

Reading: Environmental Science, Ch 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

Tentative Course Schedule

Wk.	Date	Topic	Laboratory
1	Sept 14	Introduction to the course	None
2	Sept 21	Water Quality	Water Quality
3	Sept 28	Water Quality	Water Quality
4	Oct 5	Water Quality	Water Quality
5	Oct 12	Water Quality	Water Quality
6	Oct 19	Water Quality	Water Quality
7	Oct 26	Water Quality	Water Quality
8	Nov 2	Water Quality	Water Quality
9	Nov 9	Water Quality	Water Quality
10	Nov 16	Water Quality	Water Quality
11	Nov 23	Water Quality	Water Quality
12	Nov 30	Water Quality	Water Quality
13	Dec 7	Water Quality	Water Quality
14	Dec 14	Water Quality	Water Quality
15	Dec 21	Water Quality	Water Quality
16	Dec 28	Water Quality	Water Quality
17	Jan 4	Water Quality	Water Quality
18	Jan 11	Water Quality	Water Quality
19	Jan 18	Water Quality	Water Quality
20	Jan 25	Water Quality	Water Quality
21	Feb 1	Water Quality	Water Quality
22	Feb 8	Water Quality	Water Quality
23	Feb 15	Water Quality	Water Quality
24	Feb 22	Water Quality	Water Quality
25	Feb 29	Water Quality	Water Quality
26	Mar 6	Water Quality	Water Quality
27	Mar 13	Water Quality	Water Quality
28	Mar 20	Water Quality	Water Quality
29	Mar 27	Water Quality	Water Quality
30	Apr 3	Water Quality	Water Quality
31	Apr 10	Water Quality	Water Quality
32	Apr 17	Water Quality	Water Quality
33	Apr 24	Water Quality	Water Quality
34	Apr 30	Water Quality	Water Quality
35	May 7	Water Quality	Water Quality
36	May 14	Water Quality	Water Quality
37	May 21	Water Quality	Water Quality
38	May 28	Water Quality	Water Quality
39	Jun 4	Water Quality	Water Quality
40	Jun 11	Water Quality	Water Quality
41	Jun 18	Water Quality	Water Quality
42	Jun 25	Water Quality	Water Quality
43	Jul 2	Water Quality	Water Quality
44	Jul 9	Water Quality	Water Quality
45	Jul 16	Water Quality	Water Quality
46	Jul 23	Water Quality	Water Quality
47	Jul 30	Water Quality	Water Quality
48	Aug 6	Water Quality	Water Quality
49	Aug 13	Water Quality	Water Quality
50	Aug 20	Water Quality	Water Quality
51	Aug 27	Water Quality	Water Quality
52	Sep 3	Water Quality	Water Quality

Nov 13

CNSM committee comments on CHEM 111X Introduction to Environmental Chemistry of the Arctic

This proposal is to make CHEM 111X a new core course in the Chemistry department. The course has a split local-distance delivery format and is a lab course. The course is currently being delivered as a trial course Fall 2015, which is its first trial offering. Although approved last year as a trial course, the CNSM curriculum committee has a few concerns about the new course proposal and core designation.

Major comments:

- 1) A core designation is requested for this course, but it is only 3 credits. Core science courses

3) How is the distance lab component currently working in the trial semester? Are the students able to receive, unpack, and employ their kits successfully in the distance environment? Are they functioning well performing the lab activities on their own?

Dr. Conrad and myself collaborated with eScience Labs to generate high quality

experiments, a 166-pg lab manual, and a beautiful lab kit for distance students. Students have received the kits, and been using them without trouble to perform the lab experiments. We have been available to troubleshoot during the on-campus lab time as well as via email and have had

Minor comments:

1) Course is referred to as both CHEM 104 and CHEM 111 in both format and syllabus. For

Change implemented.