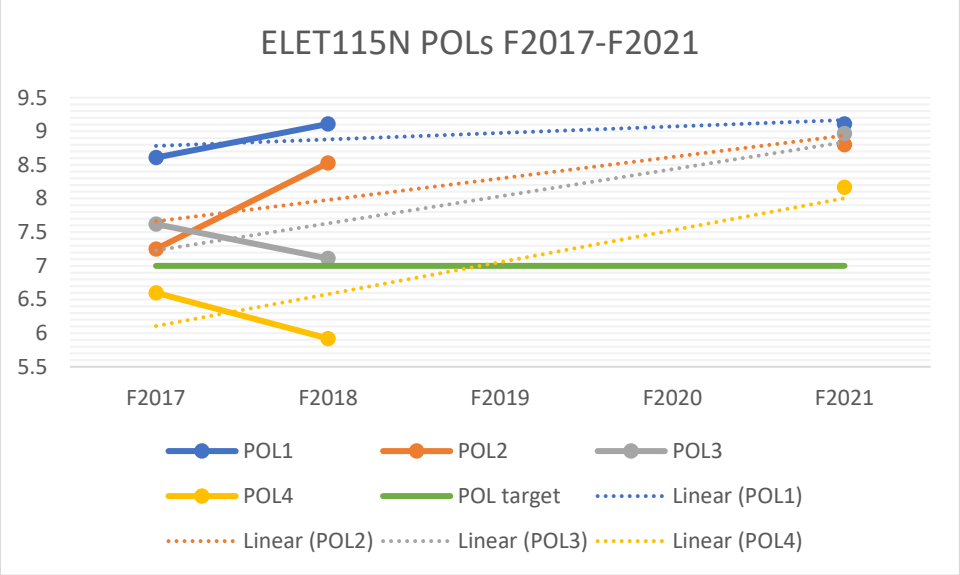
Nashua Community College
Electronic Engineering Technology
Course / Program Assessment Meeting Notes
May 26 & 27, 2022

Both full time faculty in the EET program at Nashua Community College (Susan Hughes and Austin Hewin) met to review all the completed Fall 2021 through Spring 2022 course assessments and student exit survey results. All courses were reviewed, including those taught by adjunct professors. The results of the meeting are as follows:

ELET115N (F2021)

Results: This course was taught by FT faculty. Data was not collected in F2019 or F2020 (adjunct taught course). POL scores were compared to F2018. All POL scores are improved, including the weakest from F2018. This may indicate that the transition from a 2-hour lab to 3-hour lab has had a noticeable positive effect.

Open Action Items: None.

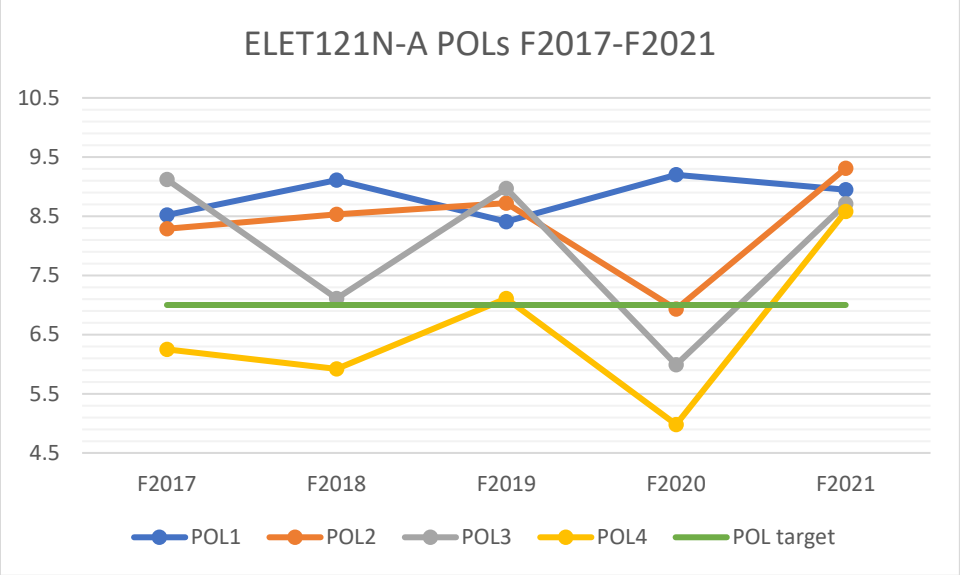


ELET121N-A (F2021)

Results: This course was taught by FT faculty. POL scores were compared to previous ELET121N-A courses. Scores improved for F2021, but there were only 3 students, and they were all average to strong students. The small sample size makes it difficult to clearly assess a pattern. In-person lectures and labs may have had a positive influence on the POL scores as well. The POL scores are consistent with previous years. Special focus was placed on POL 4 during lecture, so that may have helped to improve POL 4.

Open Action Items:

- Align both day/evening sections of the course so that both are using the same labs, homework, exams.
- Update the lab rubric to reflect work completed in lab and not have the grade wholly based on the lab report.

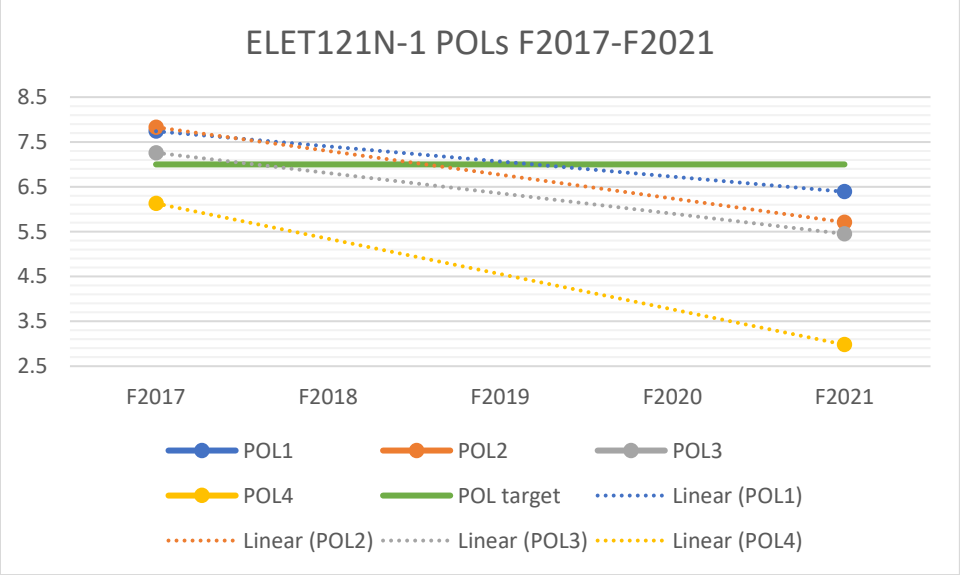


ELET121N-1 (F2021)

Results: This course was taught by FT faculty. POL scores were compared to previous ELET121N-1 courses. No data was collected for F2018, F2019, F2020 (adjunct taught course). All POL scores are down from F2017. There were 6 students, 3 of whom failed the class. See instructor course assessment for detailed information. The calculation for POL 4 included a single lab. Unfortunately, none of the students turned in a lab report for that lab, and all received a zero grade. Consequently POL 4 is much lower than it reasonably should be.

Open Action Items:

- Align both day/evening sections of the course so that both are using the same labs, homework, exams.
- Update the lab rubric to reflect work completed in lab and not have the grade wholly based on the lab report.

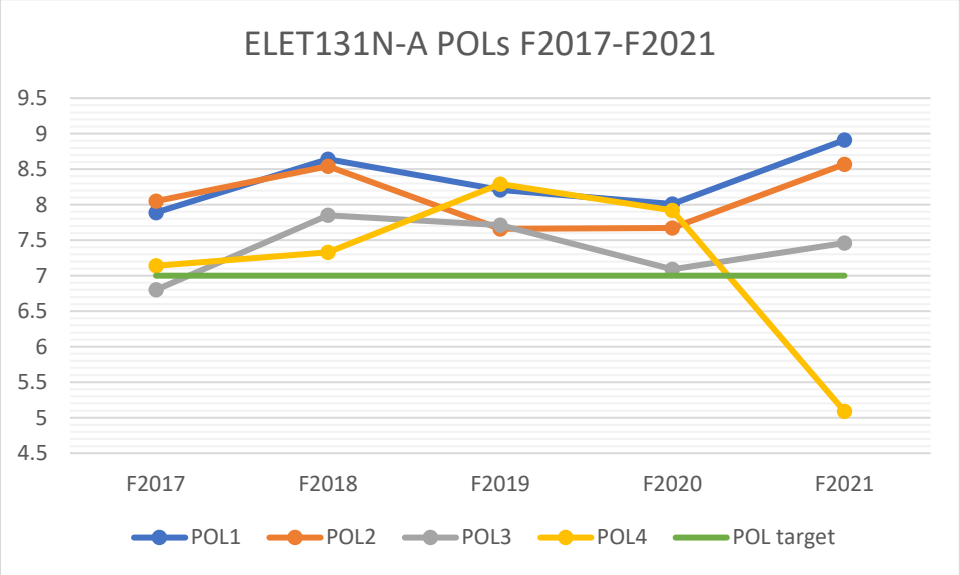


ELET131-A (F2021)

Results: This course was taught by FT faculty. POL scores were compared to previous ELET131N-A courses. Scores improved for F2021, with the exception of POL 4. Out of 6 students, 2 students had a clear impact on POL 4. The small sample size makes it difficult to clearly assess a pattern. In-person lectures and labs may have had a positive influence on the POL scores. See instructor course assessment for details.

Open Action Items:

- Align both day/evening sections of the course so that both are using the same labs, homework, exams.
- Update the lab rubric to reflect work completed in lab and not have the grade wholly based on the lab report.
- More focus on superposition during lecture.

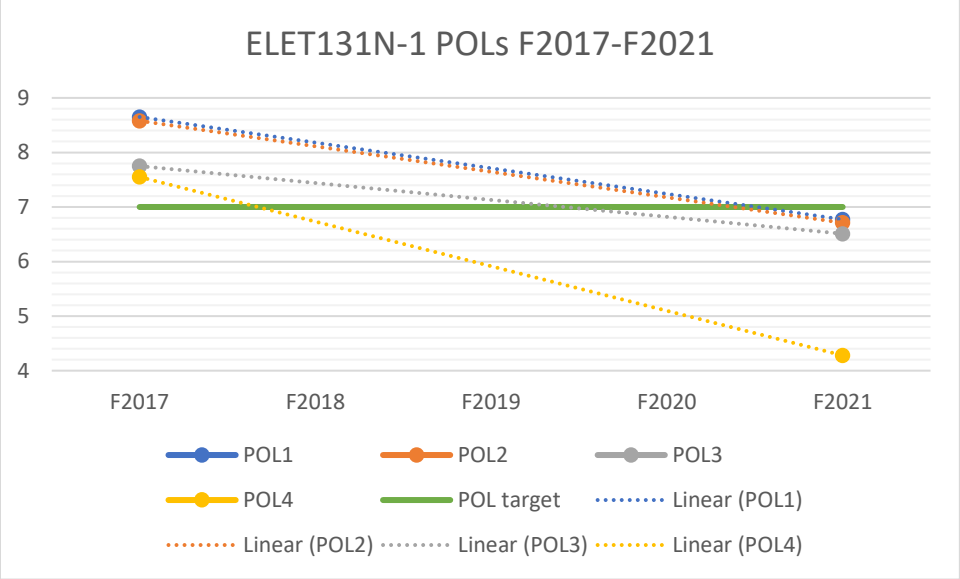


ELET131N-1 (F2021)

Results: This course was taught by adjunct faculty. POL scores were compared to previous ELET131N-1 courses. No data was collected for F2018, F2019, F2020 (adjunct taught course). All POL scores are down from F2017. There were 11 students, on 3 of whom received a B or better in the class. This was an underperforming class. The instructor should assign homework more frequently (weekly) and should do more example calculations during lecture.

Open Action Items:

- Align both day/evening sections of the course so that both are using the same labs, homework, exams.
- Update the lab rubric to reflect work completed in lab and not have the grade wholly based on the lab report.
- Weekly homework assignments.

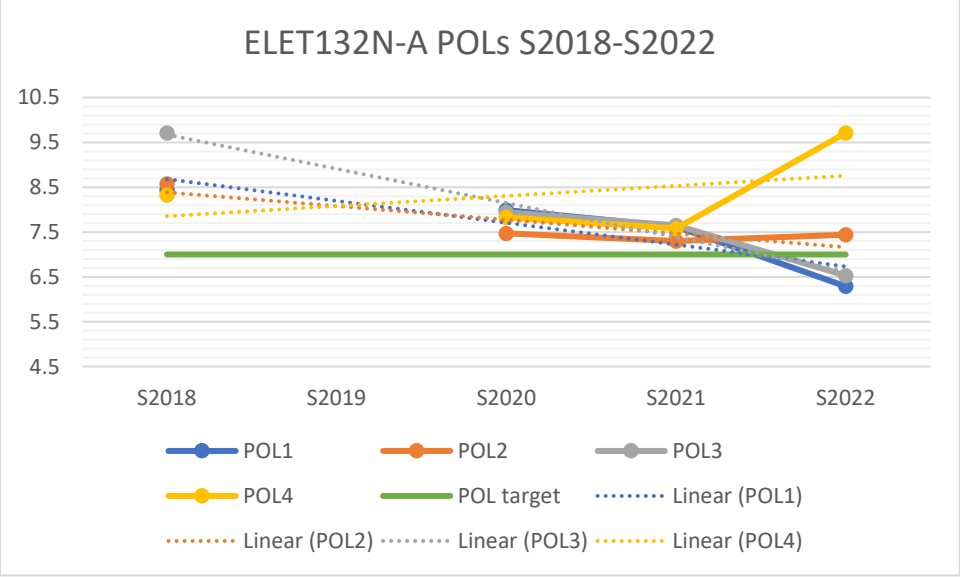


ELET132N-A (S2022)

Results: This course was taught by FT faculty. POL scores were compared to previous ELET132N-A courses. Scores are within an acceptable range when compared to previous years. Underperforming students didn't turn in homework assignments or labs and received zeroes for those assignments, which had a negative impact on the POL scores.

Open Action Items:

- Align both day/evening sections of the course so that both are using the same labs, homework, exams.
- Update the lab rubric to reflect work completed in lab and not have the grade wholly based on the lab report.

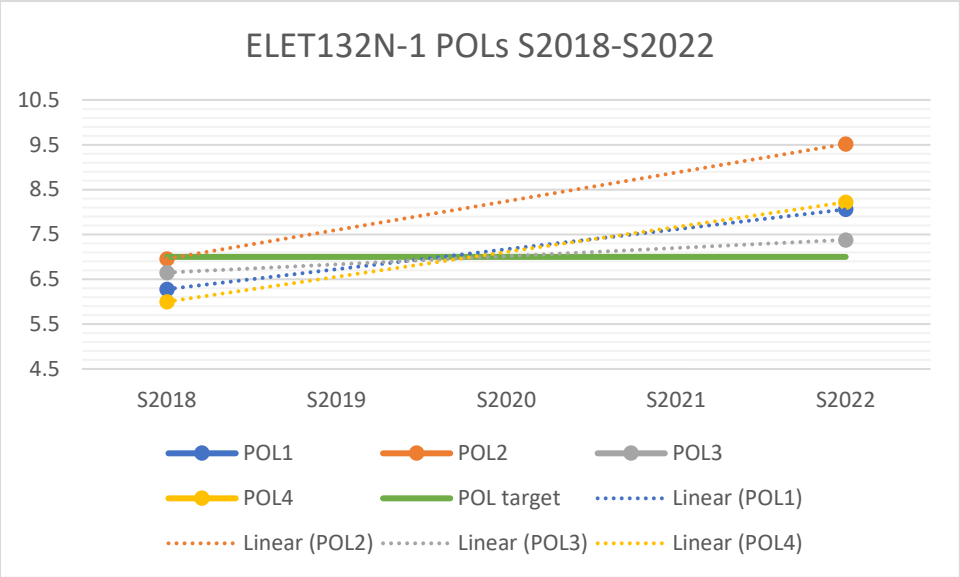


ELET132N-1 (S2022)

Results: This course was taught by adjunct faculty. POL scores were compared to previous ELET131N-1 courses. No data was collected for S2019, S2020, S2021 (adjunct taught course). All POL scores are improved from S2018. There are no concerns.

Open Action Items:

- Align both day/evening sections of the course so that both are using the same labs, homework, exams.
- Update the lab rubric to reflect work completed in lab and not have the grade wholly based on the lab report.

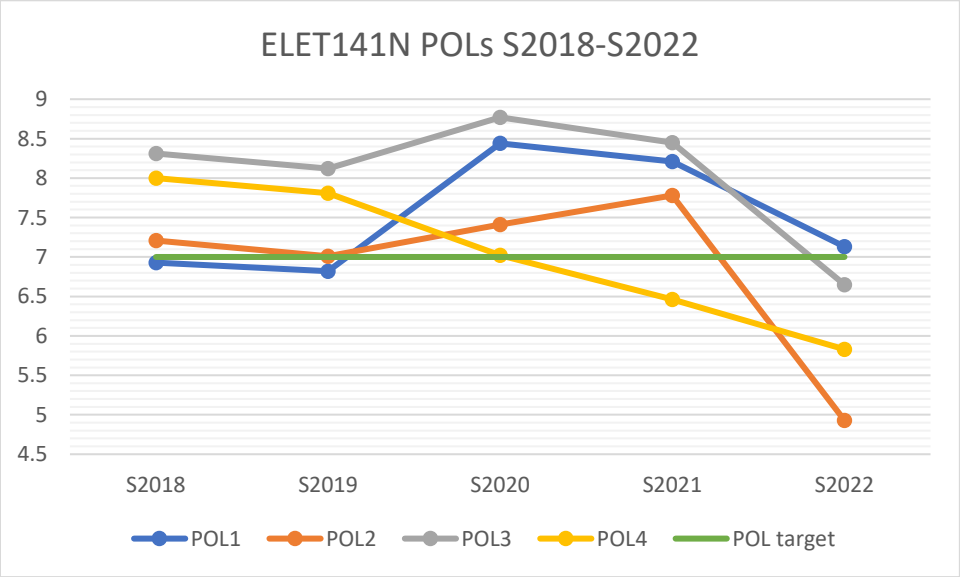


ELET141N (F2021)

Results: This course was taught by FT faculty. All POL scores are down from previous years. ¼ of the students received multiple zeroes for labs because they did not turn in lab reports. See instructor assessment for details. This was the first time this instructor taught this course.

Open Action Items:

- Add weekly homework assignments
- Supplement book problems with custom problems
- Update the lab rubric to reflect work completed in lab and not have the grade wholly based on the lab report.

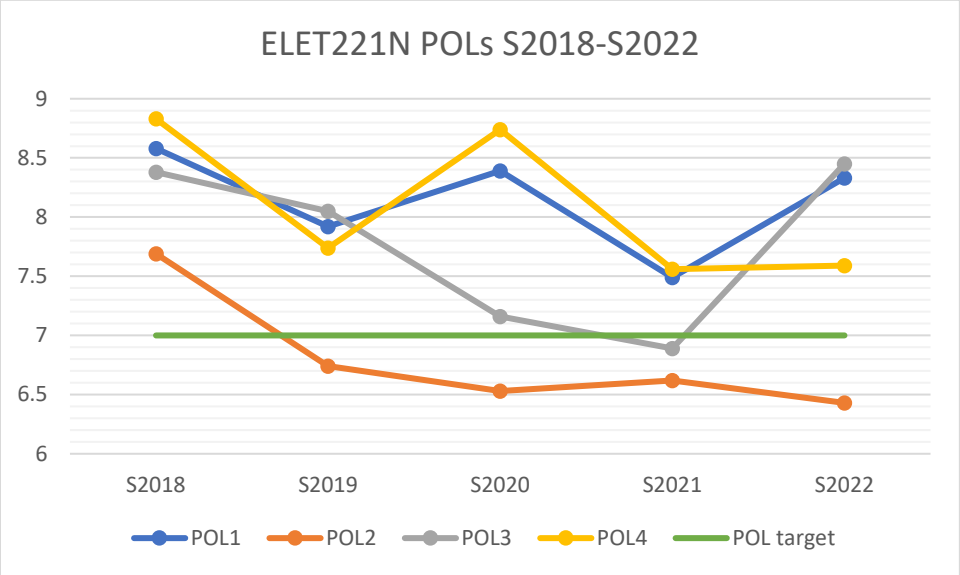


ELET221N (S2022)

Results: This course was taught by FT faculty. All POL scores are either at or above previous POL scores. A lab rubric was implemented that gave credit for lab performance, with only 20% of the lab grade based on the lab report. This had a visible positive effect on the POLs, especially POL 3. See instructor course assessment for details.

Open Action Items:

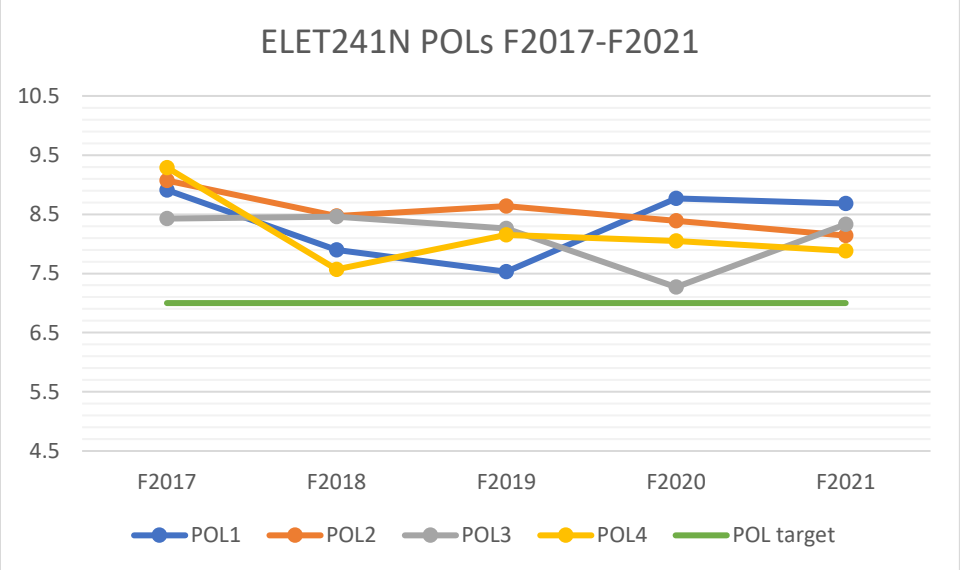
- Need to look at other resources for memory lectures
- Time to start looking at new textbook



ELET241N (F2021)

Results: This course was taught by adjunct faculty. POL scores are consistent with previous years. There are no concerns.

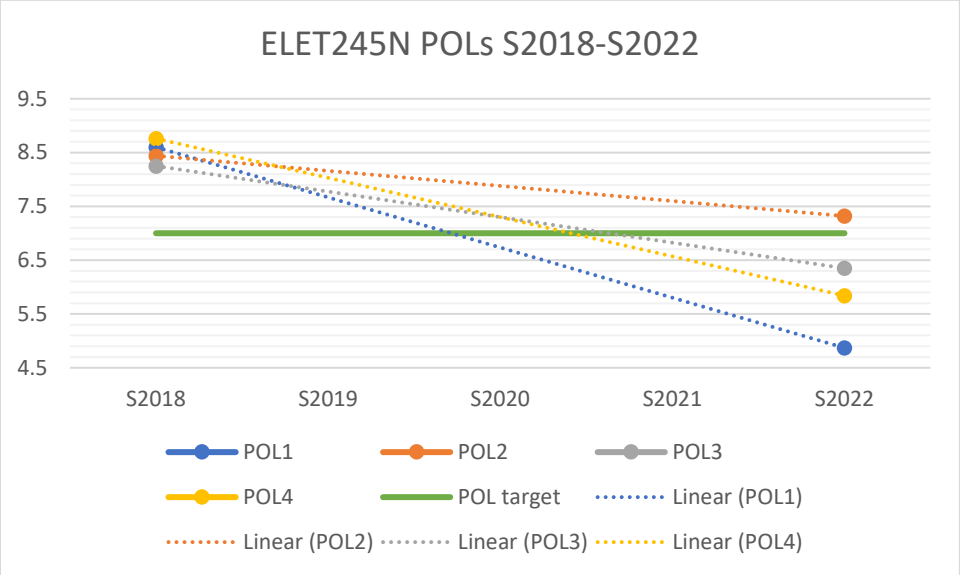
Open Action Items: None.



ELET245N (S2022)

Result: This course was taught by adjunct faculty. POL scores were compared to previous ELET245N courses where data was collected. No data was collected for S2019, S2020, S2021 (adjunct taught course). All POL scores are down from S2018. There were only 3 students in the class. Grades were A, C and D. The small sample size makes it difficult to clearly assess a pattern.

Open Action Items: None.

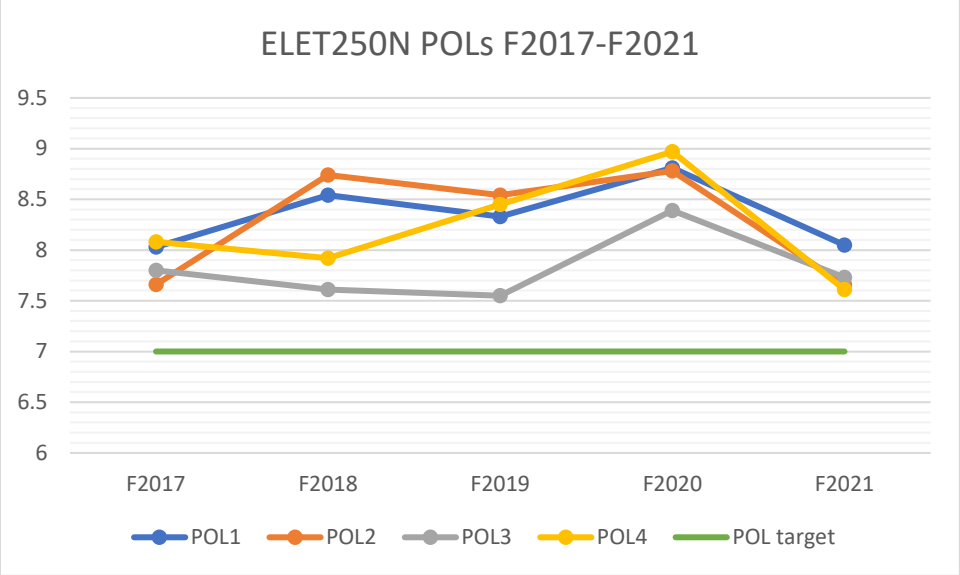


ELET250N (F2021)

Results: This course was taught by FT faculty. All POL scores are down from F2020 but are all still above 7.5. A lab rubric was implemented mid-semester that gave credit for lab performance and eliminated lab reports. This had a visible positive effect on the POLs. See instructor course assessment for details.

Open Action Items:

- Need to find new microcontroller and textbook for this course. Textbook is no longer available in print, only e-book and the companion microcontroller evaluation board has been discontinued.

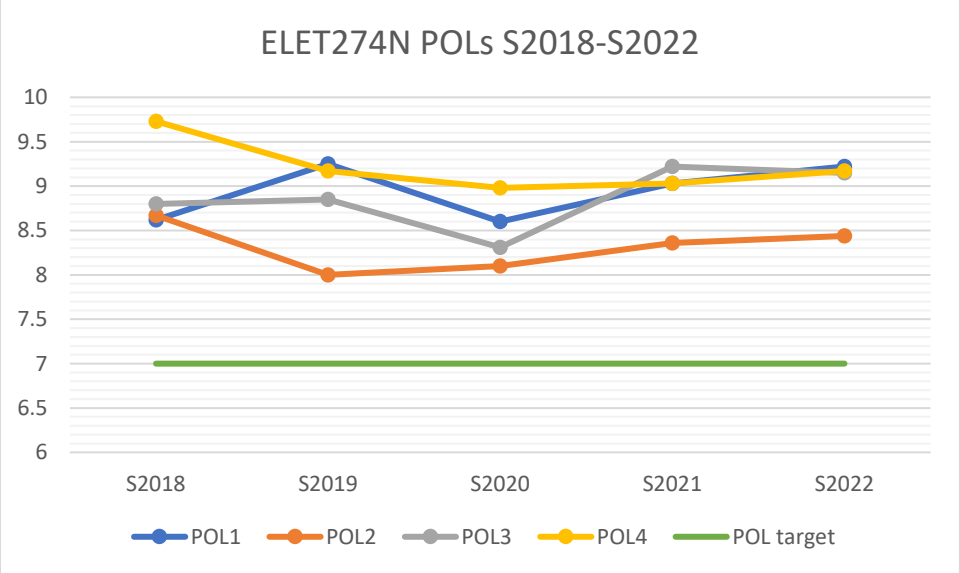


ELET274N (S2022)

Results: The POL scores are consistent with previous years. See instructor course assessments for details. This course included 4 EET students and 5 CET students.

Open Action Items:

- As stated in the course assessment forms, the concept of test plans (unit, integrated, …) is foreign to the students. This could be improved if the course were longer (across 2 semesters like NHTI) or add another course on these topics such as CSCI140N (System Analysis and Design) has in Computer Science. This is the same action item from the S2021 meeting but with two new FT faculty members, this needs to be revisited.



Senior Exit Survey (S2022)

Results: The raw data for the S2022 Senior Exit Survey is included in Improve. A summary of the Senior Exit Survey results for S2022 is as follows:

Most of the graduates are already employed, and some have been accepted into the BS program at UNH-M or UML.

- Comments on Strengths of the program include but are not limited to: great teachers, well-structured labs, and relevant classes.
- Comments on Weaknesses of the program include but not are limited to: need new lab equipment, and need a chance to retake work.

The faculty are grateful for the positive comments, and it inspires us to continue. The weaknesses were all over the map, but the #1 theme was better equipment. The entire lab received new oscilloscopes and handheld DMM meters during the spring 2018 semester, and they were well received by the students. The faculty agree that it is necessary to upgrade the power supplies, bench DMMs, and bench function generators. **A new STEM renovation is currently in progress and will resolve many of the concerns about lab equipment and lab organization.**

EET/CET GRADUATE EXIT SURVEY

What are you planning to do after graduation?

EET

- Work full time in the EET/CET field - **1**
- Work full time in the EET/CET field and continue my education - **2**
- Work part time in the EET/CET field and continue my education - **1**

CET

- Work full time in the EET/CET field and continue my education - **1**
- Work part time in the EET/CET field and continue my education - **1**
- Continue my education full time - **2**
- Continue to look for work - **1**

EET/CET GRADUATE EXIT SURVEY

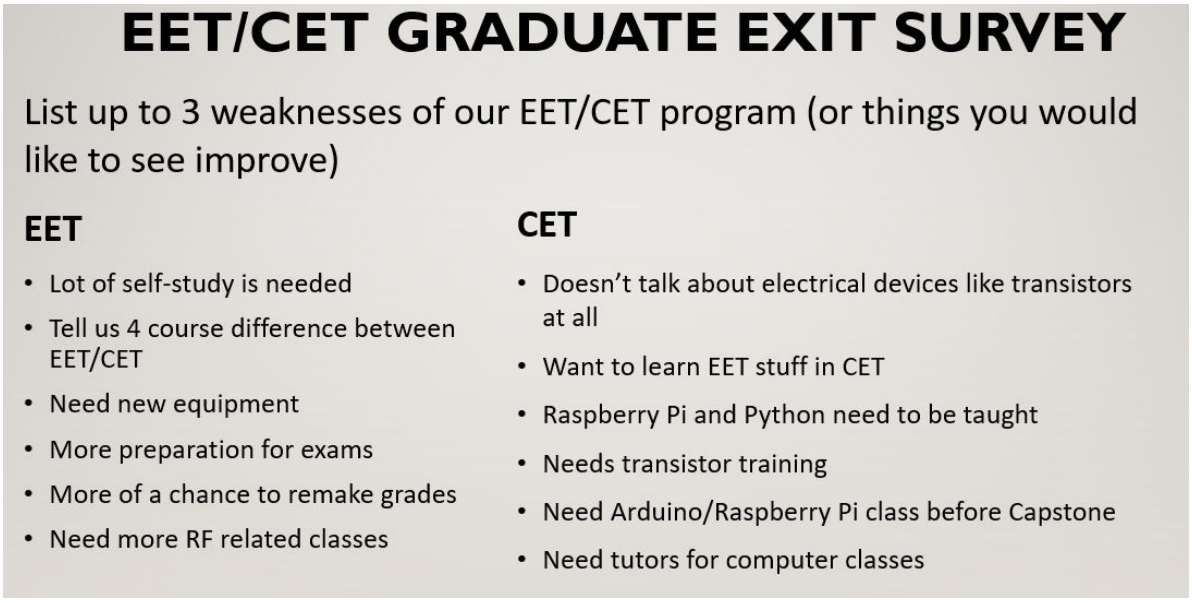
Do you plan to pursue any of the following (ever)?

EET

- I am going to enroll in a BS program - **3**
- I am going to take some short courses or additional training - **1**
- I intend to continue to learn about new developments in the field - **1**
- I might engage in some further training in the field - **1**
- I don't plan to continue pursuing further training in the field

CET

- I am going to enroll in a BS program - **4**
- I am going to take some short courses or additional training
- I intend to continue to learn about new developments in the field - **1**
- I might engage in some further training in the field - **1**
- I don't plan to continue pursuing further training in the field



Open Action Items: No concerns at this time.

Course Repository

The previous FT faculty created a course repository that partially contained the course materials that were used in past semesters. These course material, where applicable, include but are not limited to:

- PowerPoint Presentations
- Exams
- Quizzes
- Homework Assignments
- Lab Assignments
- Final Exams / Projects

This material was shared with Susan Hughes in S2021. Going forward, all relevant course materials will be uploaded to the appropriate Canvas course as an archive for future faculty. This will include answer keys for homework assignments, quizzes, exams, and labs as appropriate.

Industrial Advisory Board

The department has an industrial advisory board which consists of:

- Faculty from NHTI, UNH-M
- Former students
- Representatives from local industry

The most recent meeting was on May 9, 2022, and the meeting notes were reviewed and posted in Improve along with any action items.

Conclusion

The following items should be completed during the F2022-S2023 academic year:

- Plan for another EET Faculty Meeting at the end of the Fall 2022 and Spring 2023 semesters.
- All courses should be assessed during the upcoming school year. This includes both recording the exam grades by question and having the students complete the course POL survey at the end of the semester.
- Plan for another IAB meeting at the end of S2023.
- Collect the Student Exit Survey (during the last 2 weeks of the S2023 Semester) from the students taking ELET274N.
- Adjuncts need to be formally trained on the EET Assessment Process.
- Data will continue to be collected each semester for both adjunct and FT faculty taught classes, and all courses will be reviewed on a yearly basis. This decision will be evaluated again next year to determine if we can review the courses on alternate years.

Meeting notes recorded on Monday, May 31, 2022

Professor Susan Hughes (Program Coordinator)
Professor Austin Hewin