## Assessment: Course Four Column

## Courses (SCI) - Chemistry

## CHEM 242L:Organic Chemistry Lab II

## Course Outcomes

- Understanding the chemistry involved in a particular experiment. Students will describe the chemical theory behind an experiment and be able to clearly articulate this theory in a lab report and lab notebook

Course Outcome Status: Active Next Assessment: 2023-2024

## Safety and coming prepared - Safety

 and coming to lab prepared.Students will pass quizzes on the experiment of the day and the equipment and chemicals that are being used
Course Outcome Status: Active
Next Assessment: 2023-2024

## Complete lab - Keeping accurate and

 complete lab notebooksStudents will record experimental procedures and results in a lab notebook in a manner clear enough that experiments may be reproduced and detailed lab reports may be

## Assessment Measures

Assignment - Lab - Aggregate grade on lab notebook and lab reports Criterion: $90 \%$ of students with an aggregate score of $90 \%$ or better on the lab notebook and lab reports

## Results

Actions

## Reporting Period: 2018-2019

Criterion Met: Yes
$100 \%$ of students had an an aggregate score of $90 \%$ or better on the lab notebook and lab reports

## Results Analysis:

This is an adequate result for this part of this course.
(09/17/2019)

Action: keep this part of the course the same (09/17/2019)

Assignment - Written - Lab
notebooks
Criterion: $100 \%$ of students with an aggregate score of $90 \%$ or better on lab notebooks

## Reporting Period: 2018-2019

Criterion Met: Yes
$100 \%$ of students had an an aggregate score of $90 \%$ or better on applicable exam questions
--- this is about safety. If they do not perform at this level
then I make them retake the quiz
Results Analysis:
This is an adequate result for this part of this course. (09/17/2019)

Reporting Period: 2018-2019
Criterion Met: Yes
$100 \%$ of students had an an aggregate score of $90 \%$ or
better on lab notebooks
Results Analysis:


## Lab (technical) report writing -

Proficiency at lab (technical) report writing
students will produce scientific lab reports that clearly communicate a scientific experiment and differentiate between the different, distinct parts of the lab report
Course Outcome Status: Active
Next Assessment: 2023-2024

## Assignment - Lab - Correct

 completion of lab reports Criterion: $90 \%$ of students with an aggregate score of $90 \%$ or better on ab reportsGrammatically English - Ability to communicate in clear, grammatically correct written English Students will communicate in clear, grammatically correct written English Course Outcome Status: Active Next Assessment: 2023-2024

## Assignment - Lab - Correct

 completion of lab reports - lab reports are not accepted with excessive language mistakes. Criterion: $90 \%$ of students with an aggregate score of $90 \%$ or better on lab reports
## GEN ED, Scientific Data

Interpretation - GEN ED, Scientific
Data Interpretation: Effectively apply

## Assignment - Lab - Aggregate lab

 scoreCriterion: $90 \%$ of students with an

Reporting Period: 2018-2019

## Criterion Met: Yes

$100 \%$ of students had an an aggregate score of $90 \%$ or better on lab reports

Results Analysis:
This is an adequate result for this part of this course.
Students have written over 100 lab reports by this point in their career, so they know how to do it. (09/17/2019)

## Reporting Period: 2018-2019

## Criterion Met: Yes

$100 \%$ of students had an an aggregate score of $90 \%$ or better on lab reports

Results Analysis:
This is an adequate result for this part of this course.
Students have written over 100 lab reports by this point in
their career, so they know how to do it. (09/17/2019)

| Course Outcomes | Assessment Measures | Results | Actions |
| :---: | :---: | :---: | :---: |
| mathematical principles and quantitative methods to collect and analyze scientific data <br> Course Outcome Status: Active Next Assessment: 2023-2024 | aggregate score of $90 \%$ or better on the total lab score | on applicable sections of lab reports <br> Results Analysis: <br> This is an adequate result for this part of this course. (09/17/2019) |  |
| GEN ED, Scientific Data Interpretation: Utilize the scientific method to arrive at informed conclusions - GEN ED, Scientific Data Interpretation: Utilize the scientific method to arrive at informed conclusions <br> Course Outcome Status: Active <br> Next Assessment: 2023-2024 | Assignment - Lab - Aggregate lab score <br> Criterion: 90\% of students with an aggregate score of $90 \%$ or better on the total lab score | Reporting Period: 2018-2019 <br> Criterion Met: Yes <br> $100 \%$ of students with an aggregate score of $90 \%$ or better on applicable sections of lab reports <br> Results Analysis: <br> This is an adequate result for this part of this course. (09/17/2019) | Action: Labs are the closest thing we have to completion/competency-based learning in the sciences. I approach assessment of this course with the intent that students should be able to get $100 \%$ on all the assignments. To this end students are made to repeat lab quizzes if they get below $80 \%$ (due mainly to safety) and they are made to rewrite lab reports that have errors (sometimes this means two or three revisions - especially in lower division courses where students are still learning how to write reports.) This is what leads to the very high outcome attainment reflected in this report. (09/17/2019) |

