

Outcome Assessment Aggregation Report for BIO 9 - Human Biology

Outcome Assessment Type	Course (SLO Aggregate) Assessment
Course	BIO 9 - Human Biology

Totals for each assessment level for all outcome assessments included in this report

0 Enrolled, but not assessed	
156 Meets SLO	72.9% of total number assessed
43 Developing SLO	20.09% of total number assessed
15 No evidence of SLO	7.01% of total number assessed
0 No longer enrolled	

Totals for each assessment level by outcome for all outcome assessments included in this report

Critique scientific information in the media for accuracy and reliability.

0 Enrolled, but not assessed	
34 Meets SLO	65.38% of total number assessed
14 Developing SLO	26.92% of total number assessed
4 No evidence of SLO	7.69% of total number assessed
0 No longer enrolled	

Evaluate the impact of humans on the environment.

0 Enrolled, but not assessed	
35 Meets SLO	66.04% of total number assessed
13 Developing SLO	24.53% of total number assessed
5 No evidence of SLO	9.43% of total number assessed
0 No longer enrolled	

Apply scientific method to laboratory investigations including designing experiments and interpreting quantitative information using graphs.

0 Enrolled, but not assessed	
26 Meets SLO	92.86% of total number assessed
2 Developing SLO	7.14% of total number assessed
0 No evidence of SLO	0% of total number assessed
0 No longer enrolled	

Relate the structure and function of the building blocks of life from microscopic to macroscopic levels.

0 Enrolled, but not assessed	
17 Meets SLO	60.71% of total number assessed
7 Developing SLO	25% of total number assessed
4 No evidence of SLO	14.29% of total number assessed
0 No longer enrolled	

Integrate the effects of genetic and environmental influences on health and evolution.

0 Enrolled, but not assessed	
18 Meets SLO	72% of total number assessed
5 Developing SLO	20% of total number assessed
2 No evidence of SLO	8% of total number assessed
0 No longer enrolled	

Explain the flow of chemicals and energy through living and non-living systems.

0 Enrolled, but not assessed	
26 Meets SLO	92.86% of total number assessed
2 Developing SLO	7.14% of total number assessed
0 No evidence of SLO	0% of total number assessed
0 No longer enrolled	

Outcome Report for BIO 9 - Human Biology Apply scientific method to lab...

Originator	D Gonzalez
Outcome Assessment Type	CRN-level SLO Assessment
Activation Date	03-Aug-15
Course	BIO 9 - Human Biology

Outcome

Apply scientific method to laboratory investigations including designing experiments and interpreting quantitative information using graphs.

CRN Information for 52619

CRN	52619
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Semester	Summer
Year	2015

Meeting Times

M 1200-1615 SCIE-334;T 1200-1615 SCIE-334;W 1200-1615 SCIE-334;R 1200-1615 SCIE-334

Meeting Location**Assessment & Analysis****Assessment Methods Used**

An in class exam activity where students were presented with an observation and a question (i.e. How does total body mass influence maximum aerobic capacity?). They must use their knowledge of the scientific method to design a feasible laboratory experiment that will yield appropriate quantitative data to sufficiently test their proposed hypothesis. Students presented their particular data sets to the class as a whole for interpretation and integration into formal write ups were collected as a group of 4-with the caveat that each individual member must contribute. Evaluation was individual though.

What criteria were used for assigning an assessment level to each student?

75% or better = meets SLO 50-74.9% = Developing 1-49.9% = not evidence of SLO 0% or student did not complete the assessment = not assessed

Total number of individuals at each stage:

26 Meets SLO	92.86% of total number assessed
2 Developing SLO	7.14% of total number assessed
0 No evidence of SLO	0% of total number assessed
0 Enrolled, but not assessed	
0 No longer enrolled	

Improvements made to this class since the last assessment

N/A: This is the first time this specific SLO has been assessed in my sections.

Summary of data, analysis, and discussion

While there is no comparison data yet it is encouraging to note that 26 students of 31 (92.86%) met the SLO. The students remarked that they very much enjoyed this activity and even the most advanced students collectively found it much more challenging and intellectually rewarding than the "Mickey Mouse" less intensive lab sheets on senses, bones, and water solubility. Nearly all the students could see how this lab required them to apply all that they had learned throughout the summer.

Next Steps**What future improvements, if applicable, do you plan to implement based on your assessment data, when are you planning to implement these changes, and how will you tell these are successful?**

The only improvement apparent without comparison data is to direct the student group assignments instead of allowing them to choose their own groups. Predictably, several students with poor academic skills tried to coerce others into doing the work, yet those in groups without peers they were comfortable with were successful in ensuring they did not "slip through the cracks".

What are the resources you will be requesting?

WHITE BOARDS INSTEAD OF CHALK BOARDS ARE DESPERATELY NEEDED TO IMPROVE THIS COURSE AND ALL SLOs AS WELL AS WHITE BOARD MARKERS THAT ARE NOT DRIED OUT AND ACTUALLY DO WORK.

Outcome Report for BIO 9 - Human Biology Relate the structure and funct...

Originator	D Gonzalez
Outcome Assessment Type	CRN-level SLO Assessment
Activation Date	03-Aug-15
Course	BIO 9 - Human Biology

Outcome

Relate the structure and function of the building blocks of life from microscopic to macroscopic levels.

CRN Information for 52619

CRN	52619
Semester	Summer
Year	2015

Meeting Times

M 1200-1615 SCIE-334;T 1200-1615 SCIE-334;W 1200-1615 SCIE-334;R 1200-1615 SCIE-334

Meeting Location

Assessment & Analysis

Assessment Methods Used

Written individual exam questions in a seated lab table (4 students to a table: face to face) setting. Exam questions graded individually.

What criteria were used for assigning an assessment level to each student?

75% or better = meets SLO 50-74.9% = Developing 1-49.9% = not evidence of SLO 0% or student did not complete the assessment = not assessed

Total number of individuals at each stage:

17 Meets SLO	60.71% of total number assessed
7 Developing SLO	25% of total number assessed
4 No evidence of SLO	14.29% of total number assessed
0 Enrolled, but not assessed	
0 No longer enrolled	

Improvements made to this class since the last assessment

N/A: This was the first time assessing this SLO

Summary of data, analysis, and discussion

There is currently no comparison data. However, this assessment data brought a curious phenomena to light. Several students who scored very high on the Bones and joints and senses labs, clearly struggled with these questions even though they had just answered similar questions and done activities demonstrating them on their labs. I later learned that these students were those that had enrolled in a BIO 9 course previously- and not earned a passing grade. I suspect that these students took advantage of the fact that the worksheets and lab protocols for several class activities were very similar if not unchanged and this may have skewed their grades high in proportion to their short term memory of course concepts. When they were faced with novel assessments of the same concepts their success rate went down.

Next Steps

What future improvements, if applicable, do you plan to implement based on your assessment data, when are you planning to implement these changes, and how will you tell these are successful?

I am going to deviate away from reliance on the common lab worksheet provided to all faculty and write up my own version of the lab worksheet. I really want to see how big of an issue this is. If the class average goes way down then I will have more evidence of the "repeating student" effect.

What are the resources you will be requesting?

WHITE BOARDS INSTEAD OF CHALK BOARDS ARE DESPERATELY NEEDED TO IMPROVE THIS COURSE AND ALL SLOs AS WELL AS WHITE BOARD MARKERS THAT ARE NOT DRIED OUT AND ACTUALLY DO WORK.

Outcome Report for BIO 9 - Human Biology Evaluate the impact of humans ...

Originator

D Gonzalez

Outcome Assessment Type

CRN-level SLO Assessment

Activation Date

03-Aug-15

Course

BIO 9 - Human Biology

Outcome

Evaluate the impact of humans on the environment.

CRN Information for 52619

CRN

52619

Semester

Summer

Year

2015

Meeting Times

M 1200-1615 SCIE-334;T 1200-1615 SCIE-334;W 1200-1615 SCIE-334;R 1200-1615 SCIE-334

Meeting Location

Assessment & Analysis

Assessment Methods Used

Written exam questions in a seated lab table (4 students to a table: face to face) setting. Exam questions graded individually.

What criteria were used for assigning an assessment level to each student?

75% or better = meets SLO 50-74.9% = Developing 1-49.9% = not evidence of SLO 0% or student did not complete the assessment = not assessed

Total number of individuals at each stage:

16 Meets SLO	55.17% of total number assessed
8 Developing SLO	27.59% of total number assessed
5 No evidence of SLO	17.24% of total number assessed
0 Enrolled, but not assessed	
0 No longer enrolled	

Improvements made to this class since the last assessment

This Summer 2015 semester had a much improved attendance leading to only 2 students not being assessed--down from 13 last Spring. The 75% threshold to meet the SLO very much conceals important data for this class. All 16 of the students meeting the SLO scored over 95% on these specific exam questions. 6 of the 8 students in the "Developing SLO" category wound up with 66% (mastered 2 of 3 questions) which put them in "Developing SLO" perhaps too harshly.

Summary of data, analysis, and discussion

This group of students largely (with 3 exceptions) had an unusual discipline to actually attend class and do their homework. While this assessment was given early on in the summer when some students were still adapting to the class--this criteria appears to have come up short. All 16 of the students meeting the SLO scored over 95% on these specific exam questions. Further more this group (comprised of advanced undergrads enrolled from 4 year universities) performed superlatively on ALL COURSE COMPONENTS and they seemed to possess study skills that were atypical of a majority of traditional CCSF students. 6 of the 8 students in the "Developing SLO" category wound up with 66% (mastered 2 of 3 questions) which put them in "Developing SLO" perhaps too harshly. These 6 students showed marked improvement as the summer continued on.

Next Steps

What future improvements, if applicable, do you plan to implement based on your assessment data, when are you planning to implement these changes, and how will you tell these are successful?

I am going to continue to use an active learning strategy based lecture instead of just a lab to present this topic in advance of the exam questions. A more structured and directed form of kinesthetic instruction has shown to be more useful for this SLO. Further I am going to give one in depth question instead of 3 short answer ones.

What are the resources you will be requesting?

WHITE BOARDS INSTEAD OF CHALK BOARDS ARE DESPERATELY NEEDED TO IMPROVE THIS COURSE AND ALL SLOs AS WELL AS WHITE BOARD MARKERS THAT ARE NOT DRIED OUT AND ACTUALLY DO WORK.

Outcome Report for BIO 9 - Human Biology Critique scientific informatio...

Originator

D Gonzalez

Outcome Assessment Type	CRN-level SLO Assessment
Activation Date	03-Aug-15
Course	BIO 9 - Human Biology

Outcome

Critique scientific information in the media for accuracy and reliability.

CRN Information for 52619

CRN	52619
Semester	Summer
Year	2015

Meeting Times

M 1200-1615 SCIE-334;T 1200-1615 SCIE-334;W 1200-1615 SCIE-334;R 1200-1615 SCIE-334

Meeting Location

Assessment & Analysis

Assessment Methods Used

Written essay questions in a seated lab table (4 students to a table: face to face) setting. Essay questions graded individually. On previous class day a lecture introduction for how to search for reliable information in electronic databases and the protocol for assessing the validity of such data was presented. Completed individually.

What criteria were used for assigning an assessment level to each student?

75% or better = meets SLO; 50-74.9% = Developing; 1-49.9% = no evidence of SLO; 0% = student did not complete the assessment (not assessed)

Total number of individuals at each stage:

18 Meets SLO	64.29% of total number assessed
6 Developing SLO	21.43% of total number assessed
4 No evidence of SLO	14.29% of total number assessed
0 Enrolled, but not assessed	
0 No longer enrolled	

Improvements made to this class since the last assessment

Spring 2015 Data for this SLO: 61.5% of total number assessed meets SLO 1; 23% of total number assessed developing SLO; 15% of total number assessed with no evidence of SLO. Summer 2015 Data indicate a 3% increase in number meeting SLO and a slight decline in number developing SLO and with no evidence of SLO.

Summary of data, analysis, and discussion

Assessing this SLO with an IN CLASS quiz instead of homework definitely helped bring the Not Assessed category down from 15 in Spring

2015 to only 3 in Summer 2015. This group of students were better prepared overall for undergraduate academics as there were several advanced undergraduates from 4 year universities enrolled in this section (for their non-major science general education requirement).

Next Steps

What future improvements, if applicable, do you plan to implement based on your assessment data, when are you planning to implement these changes, and how will you tell these are successful?

I will continue to evaluate assessment techniques for further improvement. I will continue to use an in-class method for this SLO next semester, despite this specific class unusually demonstrating the discipline to carry out homework assignments.

What are the resources you will be requesting?

WHITE BOARDS INSTEAD OF CHALK BOARDS WOULD SUBSTANTIALLY IMPROVE THIS COURSE. AS WOULD WHITE BOARD MARKERS THAT ACTUALLY WORK AND ARE NOT DRIED OUT.

Outcome Report for BIO 9 - Human Biology Explain the flow of chemicals

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Originator	D Gonzalez
Outcome Assessment Type	CRN-level SLO Assessment
Activation Date	03-Aug-15
Course	BIO 9 - Human Biology

Outcome

Explain the flow of chemicals and energy through living and non-living systems.

CRN Information for 52619

CRN	52619
Semester	Summer
Year	2015

Meeting Times

M 1200-1615 SCIE-334;T 1200-1615 SCIE-334;W 1200-1615 SCIE-334;R 1200-1615 SCIE-334

Meeting Location

Assessment & Analysis

Assessment Methods Used

In class Socratic seminar responses (recorded with clickers) AND a written exam question in a seated lab table (4 students to a table: face to face) setting. Exam questions graded individually.

What criteria were used for assigning an assessment level to each student?

75% or better = meets SLO 50-74.9% = Developing 1-49.9% = not evidence of SLO 0% or student did not complete the assessment = not

assessed

Total number of individuals at each stage:

26 Meets SLO	92.86% of total number assessed
2 Developing SLO	7.14% of total number assessed
0 No evidence of SLO	0% of total number assessed
0 Enrolled, but not assessed	
0 No longer enrolled	

Improvements made to this class since the last assessment

N/A: First time assessing this SLO

Summary of data, analysis, and discussion

Even without comparison data these metrics demonstrate the effectiveness of active learning strategy based methods. Only two of the students assessed scored less than 75% and their scores of 60% and 66.6% were still respectable and again likely due to outlier factors as one student was later determined to have cognitive impairments requiring DSPS resources while the other...in their own words "Struggled with daily motivation to do anything". The rest of the students all responded very well to the assessment and scored above 83%. Well above the 75% threshold.

Next Steps

What future improvements, if applicable, do you plan to implement based on your assessment data, when are you planning to implement these changes, and how will you tell these are successful?

Integration of even more Socratic seminar responses and active cognitive engagement. It is worth noting though that these (and most all) methods simply will not overcome the most lazy/unmotivated personalities.

What are the resources you will be requesting?

WHITE BOARDS INSTEAD OF CHALK BOARDS ARE DESPERATELY NEEDED TO IMPROVE THIS COURSE AND ALL SLOs AS WELL AS WHITE BOARD MARKERS THAT ARE NOT DRIED OUT AND ACTUALLY DO WORK.

Outcome Report for BIO 9 - Human Biology Integrate the effects of genet...

Originator	D Gonzalez
Outcome Assessment Type	CRN-level SLO Assessment
Activation Date	03-Aug-15
Course	BIO 9 - Human Biology

Outcome

Integrate the effects of genetic and environmental influences on health and evolution.

CRN Information for 52619

CRN	52619
Semester	Summer
Year	2015

Meeting Times

M 1200-1615 SCIE-334;T 1200-1615 SCIE-334;W 1200-1615 SCIE-334;R 1200-1615 SCIE-334

Meeting Location**Assessment & Analysis****Assessment Methods Used**

Written essay questions in a seated lab table (4 students to a table: face to face) setting. Exam questions graded individually.

What criteria were used for assigning an assessment level to each student?

75% or better = meets SLO 50-74.9% = Developing 1-49.9% = not evidence of SLO 0% or student did not complete the assessment = not assessed

Total number of individuals at each stage:

18 Meets SLO	72% of total number assessed
5 Developing SLO	20% of total number assessed
2 No evidence of SLO	8% of total number assessed
0 Enrolled, but not assessed	
0 No longer enrolled	

Improvements made to this class since the last assessment

N/A: First time assessing this SLO

Summary of data, analysis, and discussion

One of the two students who scored in the "No evidence of SLO" category should definitely be regarded as an outlier as this person possessed the intellect to master this concept if they wanted to yet instead this person (a Philosophy major seeking to become an attorney) made a conscious decision to answer the question with a written soliloquy on their personal faith.

Next Steps**What future improvements, if applicable, do you plan to implement based on your assessment data, when are you planning to implement these changes, and how will you tell these are successful?**

I will continue to evaluate assessment techniques for further improvement.

What are the resources you will be requesting?

WHITE BOARDS INSTEAD OF CHALK BOARDS ARE DESPERATELY NEEDED TO IMPROVE THIS COURSE AND ALL SLOs AS WELL AS WHITE BOARD MARKERS THAT ARE NOT DRIED OUT AND ACTUALLY DO WORK.

Outcome Report for BIO 9 - Human Biology Evaluate the impact of humans ...

Originator	Matthew Schweitzer
Outcome Assessment Type	CRN-level SLO Assessment
Activation Date	23-Jul-15
Course	BIO 9 - Human Biology

Outcome

Evaluate the impact of humans on the environment.

CRN Information for 52620

CRN	52620
Semester	Summer
Year	2015

Meeting Times

M 1030-1445 SCIE-335;T 1030-1445 SCIE-335;W 1030-1445 SCIE-335;R 1030-1445 SCIE-335

Meeting Location

Assessment & Analysis

Assessment Methods Used

This SLO was assessed via a take-home (homework) assignment.

What criteria were used for assigning an assessment level to each student?

o evaluate students' understanding of their impact on the environment, students were asked to complete a lifestyle survey, which then tells each individual their "eco-score." Assessment of this SLO was dependent on whether students could answer the following three questions correctly: (1) define a carbon footprint; (2) describe why it is important to have as small a footprint as possible, and (3) list 3 changes that you could make (or have made) to reduce your carbon footprint. Students met the SLO if their score on the above questions were 70% or greater, developing the SLO if their score on the above questions were 40-70%, and had no evidence of meeting the SLO if their score on the above questions were less than 40%.

Total number of individuals at each stage:

19 Meets SLO	79.17% of total number assessed
5 Developing SLO	20.83% of total number assessed
0 No evidence of SLO	0% of total number assessed
0 Enrolled, but not assessed	
0 No longer enrolled	

Improvements made to this class since the last assessment

Rather than using an in-class quiz to evaluate SLO, I gave this as a homework assignment.

Summary of data, analysis, and discussion

Allowing students more time to work on it seemed to have a larger impact on SLO outcomes when compared to previous semester

Next Steps

What future improvements, if applicable, do you plan to implement based on your assessment data, when are you planning to implement these changes, and how will you tell these are successful?

I will continue to evaluate assessment techniques for further improvement

What are the resources you will be requesting?

White boards in class to assist in lectures

Outcome Report for BIO 9 - Human Biology Critique scientific informatio...

Originator

Matthew Schweitzer

Outcome Assessment Type

CRN-level SLO Assessment

Activation Date

23-Jul-15

Course

BIO 9 - Human Biology

Outcome

Critique scientific information in the media for accuracy and reliability.

CRN Information for 52620

CRN

52620

Semester

Summer

Year

2015

Meeting Times

M 1030-1445 SCIE-335;T 1030-1445 SCIE-335;W 1030-1445 SCIE-335;R 1030-1445 SCIE-335

Meeting Location

Assessment & Analysis

Assessment Methods Used

This SLO was assessed via a take-home (homework) assignment.

What criteria were used for assigning an assessment level to each student?

To evaluate students' understanding of their impact on the environment, students were asked to complete a lifestyle survey, which then tells each individual their "eco-score." Assessment of this SLO was dependent on whether students could answer the following three questions correctly: (1) define a carbon footprint; (2) describe why it is important to have as small a footprint as possible, and (3) list 3 changes that you could make (or have made) to reduce your carbon footprint. Students met the SLO if their score on the above questions were 70% or greater, developing the SLO if their score on the above questions were 40-70%, and had no evidence of meeting the SLO if their score on the above questions were less than 40%.

Total number of individuals at each stage:

16 Meets SLO	66.67% of total number assessed
8 Developing SLO	33.33% of total number assessed
0 No evidence of SLO	0% of total number assessed
0 Enrolled, but not assessed	
0 No longer enrolled	

Improvements made to this class since the last assessment

Rather than using an in-class quiz to evaluate SLO, I gave this as a homework assignment.

Summary of data, analysis, and discussion

Allowing students more time to work on it seemed to have a larger impact on SLO outcomes when compared to previous semester

Next Steps

What future improvements, if applicable, do you plan to implement based on your assessment data, when are you planning to implement these changes, and how will you tell these are successful?

I will continue to evaluate assessment techniques for further improvement

What are the resources you will be requesting?

White boards in class to assist in lectures