Q-core Assessment Report

Course: PHL 236 Q Introduction to Logic
Semester: Spring 2013
Instructor(s) and/or supervisor: Waller
Assessment done by (2 faculty members): Waller and Levy
Number of students in course: 75
Number of students assessed (at least 6): 12

Description of assignment, problems, and/or questions used for assessment:

Final exam questions – 3 questions asking students to represent and assess arguments using Venn, Modified Euler, or Carroll Diagrams were used in this assessment

Learning Outcome 1: Interpret and draw inferences from mathematical or statistical models represented as formulas, graphs, or tables.

- Total number of assignments assessed: 12
- Number of assignments demonstrating the learning outcome at an acceptable level, as defined in the Q-core Rationale and Assessment Plan: 10
- Proportion of assignments rated as “acceptable”: 83%
- Is this over the specified threshold of 2/3? yes
- Comments and ideas for better aligning the course or the assignments with the Q-core rationale:

The two sections of the course, fall and spring, probably need to be synchronized a bit more than they are currently.

That said, the diagrams are a good method for assessing all 3 learning outcomes. These diagrams ask students to draw inferences about the validity or invalidity of an argument based on a diagram they construct to portray the relationships between sets.

- Comments and ideas for improving the process of assessment:
This seems to be working well as it is.

**Learning Outcome 2: Represent mathematical or statistical information numerically and visually.**

- **Total number of assignments assessed:** 12
- **Number of assignments demonstrating the learning outcome at an acceptable level, as defined in the Q-core Rationale and Assessment Plan:** 10
- **Proportion of assignments rated as “acceptable”:** 83%
- **Is this over the specified threshold of 2/3?** Yes

**Comments and ideas for better aligning the course or the assignments with the Q-core rationale:**

The diagrams ask students to represent mathematical information about sets and members of sets visually.

**Comments and ideas for improving the process of assessment:**

none
Learning Outcome 3: *Employ quantitative methods such as arithmetic, algebra, geometry, or statistical inference to solve problems.*

- Total number of assignments assessed: 12
- Number of assignments demonstrating the learning outcome at an acceptable level, as defined in the Q-core Rationale and Assessment Plan: 10
- Proportion of assignments rated as “acceptable”: 83%
- Is this over the specified threshold of 2/3? yes

Comments and ideas for better aligning the course or the assignments with the Q-core rationale:

In PHL 236, students solve problems using diagrams and do proofs similar to those in geometry.

Comments and ideas for improving the process of assessment:

Next year I think this course could use proofs done in quantificational/predicate logic to assess students’ abilities to employ quantitative methods to solve problems. If the Q assessment team thinks that quantificational proofs are a more appropriate measure of the third outcome, we are happy to go back and review the final exams for student success on quantificational proofs.