**ASSESSMENT REPORT TEMPLATE**

**2017-18**

**Revised: January, 2019**

**College:  *Arts and Sciences***  **Department/School: Dean’s office.**

**Program:  *Mathematics***  **Degree Level: Bachelor’s**

**Academic Year of Report: 2018-2019 Date Range of Reported Data: F2018**

**Person Preparing the Report:** Michael Matthews☒

1. **Program Student Learning Outcomes (SLOs)**
2. List each program SLO and indicate the cognitive level it represents. To accommodate more than four SLOs, add rows as needed.

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| **Student Learning Outcomes** | **Bloom’s Taxonomy - Cognitive Level**  *(check one)* |
| **SLO 1:** Students will be be able to make and write correct,clear and  concise arguments**.** | ☐ Knowledge ☐ Analysis  ☒ Comprehension ☐ Synthesis  ☐ Application ☐ Evaluation |
| **SLO 2:**Be able to communicate mathematics effectively in oral form. | ☐ Knowledge ☐ Analysis  ☐ Comprehension ☐ Synthesis  ☒ Application ☐ Evaluation |
| **SLO 3:** Demonstrate substantive comprehension of the major ideas in the core areas of their fields of study. | ☐ Knowledge ☐ Analysis  ☒ Comprehension ☐ Synthesis  ☐ Application ☐ Evaluation |
|  | ☐ Knowledge ☐ Analysis  ☐ Comprehension ☐ Synthesis  ☐ Application ☐ Evaluation |

1. Describe how SLOs are communicated to stakeholders.



**II. Assessment Methods**

Complete a table for each SLO. If an SLO is assessed by more than one measure, complete tables for each measure. Duplicate the table as needed to accommodate the number of measures. Attach copies of rubrics.

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| **SLO 1: :** Students will be be able to make and write correct,clear and concise arguments**.** | |
| 1. **Title of the Measure: Rating Collected Student Written Works—Constructing Mathematical Arguments** | |
| 1. **Describe How the Measure Aligns to the SLO**   **An important skill in the mathematical sciences is to make arguments and to write proofs. Collected**  **student works would be measuring student abilities in these areas.** | |
| 1. **Domain** *Check all that apply* | ☐ Examination ☒ Product ☐ Performance |
| 1. **Type** | ☒ Direct Measure ☐ Indirect Measure |
| 1. **Point in Program Assessment is Administ ered** | ☐ In final term of program ☒ In final year of program  **Where does the assessment occur?** The assessment would be done in the following courses under the supervision of the two academic coordinators. In each area, exam questions have been selected by the academic coordinator in consultation with the instructor(s) for these courses. These questions will be used to assess that particular SLO according to an established rubric. The exam questions will be given each semester the course is offered.  **For the first academic coordinator (currently Michael Matthews):**  Computational Mathematics: Math 3230 -Intro To Analysis  Math. Ed.: Math 3230 -Intro To Analysis  Research Experience: Math 3230 -Intro To Analysis  Majors with no area of conc.: Math 3230- Intro To Analysis  **For the second academic coordinator (currently Slava Rykov):**  Operations Research: Math 4756 - Intro to Probability and Statistics I  Data Science: Math 4756 - Intro to Probability and Statistics I  Pre-Actuarial Science: Math 4740 - Intro to Probability and Statistics I  Statisitcs: Math 4756 - Intro to Probability and Statistics I |
| 1. **Population Measured** | ☐ All students ☒ Sample of students - Describe below  All math majors. |
| 1. **Frequency of  Data Collection** | ☐ Once/semester ☐ Once/year ☒ Other - Describe below  The frequency will depend on the core area. It will be at least once a year as discussed in point 5 above. It will be done each time the courses listed above are offered. For some courses, this is every Fall or Spring semester. For other courses, it is once a year. |
| 1. **Proficiency Threshold** | *Describe:*  *The assessment coordinator for that area of concentration will collect exam questions as described above. The student’s work on that exam question will be rated into exactly one of the following four categories: Unsatisfactory, Satisfactory, Good, Very Good.* |
| 1. **Program Proficiency Target** | *Describe:*  *For each collected exam question,the proficiency target is that at least 70% of students would be rated as either Good or Very Good(See Proficiency Threshold discussion above).* |
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| **SLO 2: Be able to communicate mathematics effectively in oral form.** | |
| 1. **Title of the Measure: Student Oral Presentations** | |
| 1. **Describe How the Measure Aligns to the SLO**   **Initially, the total number of oral presentations given by math majors would be noted each semester.**  **These presentations could be in a number of different venues or settings, such as departmental colloquiums, national or sectional meetings of mathematical groups or associations, presentations given to local companies, etc. Eventually, an oral presentation of some kind might be mandatory, at least for all**  **Mathematics majors declaring a core area of concentration.** | |
| 1. **Domain** *Check all that apply* | ☐ Examination ☐ Product ☒ Performance |
| 1. **Type** | ☒ Direct Measure ☐ Indirect Measure |
| 1. **Point in Program Assessment is Administered** | ☐ In final term of program ☐ In final year of program  This would be done each semester.  Where does the assessment occur: |
| 1. **Population Measured** | ☐ All students ☒ Sample of students - Describe below  When oral presentations are required, those students declaring a core area of study. |
| 1. **Frequency of  Data Collection** | ☐ Once/semester ☐ Once/year ☒ Other - Describe below |
| 1. **Proficiency Threshold** | *Describe: Students will present a sample of their work at one of the venues/settings*  *Described in Point 2 above.* |
| 1. **Program Proficiency Target** | *Describe: At least 70% of students will give some sort of oral presentation before they graduate.* |

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| **SLO 3: Demonstrate substantive comprehension of the major ideas in the core areas of their fields of study.** | |
| 1. **Title of the Measure: Rating Collected Student Written Works-Overall Comprehension** | |
| 1. **Describe How the Measure Aligns to the SLO**   **For this SLO, student works will be collected on an exam question which measures overall comprehension. It is possible that one or more of the exam questions collected to measure SLO 1 above could also be used to**  **measure this SLO.** | |
| 1. **Domain** *Check all that apply* | ☐ Examination ☒ Product ☐ Performance |
| 1. **Type** | ☒ Direct Measure ☐ Indirect Measure |
| 1. **Point in Program Assessment is Administered** | ☐ In final term of program ☒ In final year of program  **Where does the assessment occur**:  This is the same as for SLO 1. See Point 5 above for SLO 1. |
| 1. **Population Measured** | ☐ All students ☒ Sample of students - Describe below  All math majors. |
| 1. **Frequency of  Data Collection** | ☐ Once/semester ☒ Once/year ☒ Other - Describe below  The frequency will depend on the core area. It will be at least once a year as discussed in point 5 above. It will be done each time the courses listed above are offered. For some courses, this is every semester. For other courses, it is once a year. |
| 1. **Proficiency Threshold** | *Describe:*  *The assessment coordinator for that area of concentration will collect exam questions as described above. The student’s work on that exam question will be rated into exactly one of the following four categories: Unsatisfactory, Satisfactory, Good, Very Good.* |
| 1. **Program Proficiency Target** | *Describe:*  *For each collected exam question,the proficiency target is that at least 70% of students would be rated as either Good or Very Good(See Proficiency Threshold discussion above).* |
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| **SLO 4:** | |
| 1. **Title of the Measure:** | |
| 1. **Describe How the Measure Aligns to the SLO** | |
| 1. **Domain** *Check all that apply* | ☐ Examination ☐ Product ☐ Performance |
| 1. **Type** | ☐ Direct Measure ☐ Indirect Measure |
| 1. **Point in Program Assessment is Administered** | ☐ In final term of program ☐ In final year of program  Where does the assessment occur: |
| 1. **Population Measured** | ☐ All students ☐ Sample of students - Describe below |
| 1. **Frequency of  Data Collection** | ☐ Once/semester ☐ Once/year ☐ Other - Describe below |
| 1. **Proficiency Threshold** | *Describe:* |
| 1. **Program Proficiency Target** | *Describe:* |

**III. Data Collection and Analysis**

A. Results Table – Report results for each SLO. If an SLO was assessed by multiple measures, report data for each measure. Add rows as needed to accommodate the number of SLOs and measures.

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|  | **Data Collection Date Range** | **Number of Students Assessed** | **Percentage of Students who Met/Exceeded Threshold**  **Proficiency** |
| **SLO 1 – Measure one** | *Anticipated Spring 2019* |  |  |
| **SLO 1 – Measure two**  *(if applicable)* |  |  |  |
| **SLO 2 – Measure one** | *Fall 2018* | *34* | *41.18% (goal is 70%)* |
| **SLO 2 – Measure two**  *(if applicable)* |  |  |  |
| **SLO 3 – Measure one** |  |  |  |
| ***SLO 3 – Measure two***  *(if applicable)* |  |  |  |
| **SLO 4 – Measure one** |  |  |  |
| **SLO 4 – Measure two**  *(if applicable)* |  |  |  |

1. SLO Status Table – Based on the results reported in the above table and referring to the program proficiency target, indicate the current status of program SLOs as Met, Partially Met, Not Met, or Unknown. Add rows as needed to accommodate additional SLOs.

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| SLO 1 | ☐ Met ☐ Partially Met ☐ Not Met ☒ Unknown |
| SLO 2 | ☐ Met ☒ Partially Met ☐ Not Met ☐ Unknown |
| SLO 3 | ☐ Met ☐ Partially Met ☐ Not Met ☒ Unknown |
| SLO 4 | ☐ Met ☐ Partially Met ☐ Not Met ☐ Unknown |

C. Describe how results are communicated within the program. Address each SLOs.

**IV. Decisions and Actions**

Briefly describe specific decisions and actions related to each SLO. Include who (e.g., program faculty, a faculty committee, etc.) made the decision, when the decision was made (e.g., faculty retreat, faculty meeting, etc.), what data informed the decision, and a timeline for actions taken or to be taken. Add rows as needed to accommodate additional SLOs.

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| **SLO 1** |  |
| **SLO 2** | We want to collect data for more semester before making any concrete plans. This semester’s data is incomplete because of lack of everyone participating (in reporting who has presented) and due to loss of data (due to faculty passing away, moving, retiring, and even forgetting since for some of the seniors it’s possible they presented a few years ago). |
| **SLO 3** |  |
| **SLO 4** |  |