STLF Report to CWSEI and Mathematics Department

STLF: Joseph Lo
Period: 2010-05-26 – 2010-06-30
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Specific activities performed by STLF

1) Professional development
   - Attended Daniel Schwartz's talk – Missed in Plain Sight (May 31)
   - Attended reading group (Jun 2, 9, 23, 30)
   - Attended NOJO meetings for new STLFs (May 26, Jun 3, 10, 24)

2) Math SEI general meetings/activities
   - Attended weekly STLF meetings (Jun 7)
   - Met with Costanza and discussed future plans (Jun 2)
   - Met with Carl and Costanza and discussed issues found in MATH 110 from the previous two years and possible future plans (Jun 11)
   - Met with Fok-Shuen, Djun, and David and discussed future plans of MATH 110 (Jun 7, 16, 18)
   - Met with Carl, Sarah, and Math STLFs, reviewed our progress and discussed future plans (Jun 28)

3) Course-specific meetings/activities

   MATH 110 – Differential Calculus
   - Discussion about future plans
     - The major changes for next year will be on the formats of workshops and assignments.
       - Workshops
         - We are planning to have two different types of workshops
           1. Small group projects
              - Could be application problems, conceptual explanations, or discovery problems
              - May use Wiki to track students' progress
           2. Practice with peer evaluation
              - The class is separated into 3 groups, each group will do a different set of problems for ~30 minutes
              - One student from each group get together and evaluate their peers' work
              - Quiz at the end
       - Assignments
         - Online assignments will be used in all sections.
         - We will emphasize more on students' abilities on explanations and solution writing.
     - Surveys and possibly precalculus diagnostic tests will be done during the term.

        - Selected students, based on survey responses and performance in the course, will be interviewed.
        - Assessments on basic skills may be done again at the end of the course.
    - Analyzed the results from 2008W and 2009W.
    - The setup of survey for students from 2008W and 2009W is underway.
    - Learning goals will be done together with MATH 100/180
    - Will work on in-class activities with MATH 104/184

MATH 300/305 –Complex Variables and Complex Analysis

- Discussion about future plans.
    - Course format:
        - Assignments, 2 midterms, exam.
        - There could be diagnostic tests in the beginning of the course.
        - No computer-related materials.
    - Future plans:
        - Michael will decide on course materials and set up the course website/outline in late August.
        - Learning goals will be set up in late August.
        - Surveys/interviews will be done during/after the term.
- Will meet with Rachel, Michael, Richard, and Tai-Peng on July 28
- Searching for courses for engineering physics students that require complex variable, may need to discuss with the physics STLFs

Current project status (material prepared by either STLF or other members of the MATH SEI)

MATH 110:
Learning Goals: Not started. Will be done together with Math 100/180
Assessments: Basic Skills Test is in progress. Online survey is underway.
New Methods/Materials: First draft of new workshop proposal is done. Need to discuss with the instructors before continuing.

MATH 300/305
Learning Goals: Not started.
Assessments: None at this point.
New Methods/Materials: None at this point.

Plan for immediate future work

MATH 110:

1. Set up the survey online
2. Start drafting learning goals for both the course and the workshops
3. Meet with instructors and discuss plans on workshops

MATH 300/305:

1. Research on subsequent engineering physics courses so the information can be used when drafting the learning goals