1. ASSESSMENT MEASURES EMPLOYED

The Master of Science in Teaching (Earth Science) assessment program sets three key points to measure program objectives. These points are based on new students entering the program, students graduating from the program and at a point one year after graduation. July 1, 2011 - June 30, 2012 is the fourth year of the second four-year assessment cycle. During this reporting period the following assessment measures were employed:

a. Master of Science in Teaching (Earth Science) entering and graduating from the program in the reporting period were assessed using the Group Assessment of Logical Thinking instrument.

b. Master of Science in Teaching (Earth Science) participants entering and graduating from the program during the reporting period were administered the Geoscience Concepts Inventory assessment instrument to determine their content knowledge.

c. Final Master of Science in Teaching (Earth Science) projects required of students graduating from the MST program were examined by program faculty for evidence of inquiry. The assessment was performed by review of the written reports and by means of oral examination during the report presentation.

d. Former students that had graduated in the prior assessment period were asked to respond to a post graduation survey.

2. ASSESSMENT FINDINGS

Objective One/Outcome One - Objective one states: Students will acquire the Earth Science content knowledge consistent with the National Science Education Standards needed to teach students in K-16 settings. Six entering MST students were administered a pre-program Geoscience Content Inventory assessment during this reporting period. The seven
students graduating during the assessment period increased their concept knowledge as measured on the post-program GCI assessment.

Objective Two/ Outcomes One and Two – Objective Two states: “graduates will develop and teach inquiry-based integrated science activities in K-16 settings”. Seven MST students graduated during the period from July 1, 2011 - June 30, 2012. The analysis of pre and post assessment of the Group Assessment of Logical Thinking score indicated that the students increased their scores in this measure of logical thinking skills over the period of their participation in the Master of Science in Teaching (Earth Science) program. In addition, the graduating student’s Master of Science in Teaching (Earth Science) projects were examined by program faculty for evidence of knowledge and use of inquiry-based science for their K-12 students in their final projects. Their projects displayed a substantial use and knowledge of inquiry-based science.

Objective Three/ Outcome Three- Objective three states, “Graduates will show evidence of continuing to be effective teachers and leaders in their schools”. Four former MST’s responding indicated that they were continuing to teach and advance in their careers. Evidence of this advance were graduates hired as consultants in the Ohio department of Education, elected president of the regional chapter of the National Association of Geoscience Teachers, chosen as an Ohio School District Superintendent and continuing professional development experiences as the NOAA “Teacher at Sea”. Several other former graduates attending Wright State University professional development activities indicated they were continuing to serve a leadership role in their districts as a result of their experiences in the Master of Science in Teaching (Earth Science) program.

3. PROGRAM IMPROVEMENTS
The Master of Science in Teaching has received internal and external approval to recruit teachers nationwide into a low-residency option beginning in 2013.

4. ASSESSMENT PLAN COMPLIANCE
There have been no deviations from the plan

5. NEW ASSESSMENT DEVELOPMENTS
The program faculty met in November 2011 and decided to introduce a revised Geoscience Concept Inventory Assessment to all new students entering the Master of Science in Teaching Program beginning after June 30, 2012.