***Chemistry Department***

**MULTI-YEAR ASSESSMENT PLAN**

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| **Program Learning Outcomes** | **2011-2012** | **2012-2013** | **2013-2014** | **2014-2015** | **2015-2016** | **2016-2017** | **Means of Assessment, and Benchmarks** | **Who is in charge?** | **How the loop will be closed /has been closed?** |
| 1. Core Knowledge | **X** |  |  | **X** |  |  | Administer ACS exams. The average performance on ACS Nat’l Exams will be in the 60th percentile, with 30% of students scoring above the 80th percentile, in each course that has an exam. | Department chair coordinates discussion & work among all chemistry faculty | Benchmarks achieved in all areas except Organic Chemistry II. See 2012 annual report for proposed changes that took place from spring 2012 – spring 2014. |
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| 1. Experimental Design |  | **X** |  |  | **X** |  | Track summer research; administer essay lab exam to seniors in physical chemistry. At least 50% of our graduates will participate in a summer research; at least two graduates each year will complete a major honors project; our seniors will score 24 on the senior level physical chemistry laboratory essay. | Instructor of  CHM-133-1 | Added NMR analysis component to the diethyl malonate methanolysis kinetics lab to demonstrate how NMR can be used to follow kinetics of the reaction. Add more discussion of gas and liquid chromatography to demonstrate a broader applicability. |
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| 1. Christian Connection |  |  | **X** |  |  | **X** | Administer essay exam in senior seminar course. Most students will attain a least a satisfactory score (according to our grading rubric) on their integration of faith and learning paper. 30% will attain an excellent score or higher. | Instructor of  CHM-195-1 | The department is pleased with student performance in this area. They are meeting our stated benchmark and we feel no further action is necessary. |