Assessment: Course Four Column

Courses (SCI) - Chemistry

CHEM 242:Organic Chemistry II

Course Outcomes	*Assessment Measures*	*Results*	*Actions*
Solve organic structures (IR, NMR, MS, UV) - Students will be able to use the following techniques to solve organic structures (IR, NMR, MS, UV). **Course Outcome Status:** Active **Next Assessment:** 2021-2022 **Start Date:** 09/05/2017	**Exam -** Exam questions **Criterion:** 60%	**Reporting Period:** 2016-2017 **Criterion Met:** Yes 80.5% (02/13/2018)	**Action:** I have worked on this section of the course (spectroscopy). It seems like they are really getting it now. (02/13/2018)
Apply principles of reactions, reactivity, structure, and nomenclature - Students will be able to apply principles of reactions, reactivity, structure, and nomenclature of several of the following: amino acids, peptides, proteins, carbohydrates, lipids, and nucleic acids to solving problems. **Course Outcome Status:** Active **Next Assessment:** 2021-2022 **Start Date:** 09/05/2017	**Exam -** Exam questions **Criterion:** 60%	**Reporting Period:** 2016-2017 **Criterion Met:** Yes 75% (02/13/2018)	**Action:** The subject matter we cover varies from year to year, as this is a preview of biochemistry. This year we concentrated on carbohydrates, mostly, but touched lightly on other subjects. Students stumbled on the reactivity --- but were good structure and nomenclature. I need to work on that more. (02/13/2018)
Apply principles - Students will be able to apply principles of reactions, reactivity, structure, and nomenclature of aromatic compounds, organohalides, alcohols, phenols, thiols, ethers, sulfides, aldehydes, ketones, carboxylic acids,	**Exam -** Exam questions **Criterion:** 60%	**Reporting Period:** 2016-2017 **Criterion Met:** Yes 80% (02/13/2018)	

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nitriles, carboxylic acid derivatives, amines, and heterocycles to solving problems. **Course Outcome Status:** Active **Next Assessment:** 2021-2022 **Start Date:** 09/05/2017			
Solve comprehensive, multistep organic synthesis - Students will be able to solve comprehensive, multistep organic synthesis problems involving functional groups and reagents from the first semester and second semester of this course. **Course Outcome Status:** Active **Next Assessment:** 2021-2022 **Start Date:** 09/05/2017	**Exam -** Exam questions **Criterion:** 60%	**Reporting Period:** 2016-2017 **Criterion Met:** Yes 63% (02/13/2018)	**Action:** Further improvement is needed. I increased their proficiency this year by giving extra homework in multistep synthesis, but we need t do more in this area. (02/13/2018) **Follow-Up:** This was the first year I have taught organic chemistry where I felt it was going pretty good. More improvement is needed in multistep synthesis and retention of material. I plan to accomplish this with problem sets. Their understanding of carbonyl reactivity is also a weak point. More to work on next year. Might need to reorganize the material a bit. Now that this course is taught every year it will be easier to improve. It should be noted that I think this is one of the most challenging courses at GBC. The second semester of organic chemistry has a HUGE amount of material that must be deeply understood in order to pass. Anything related to memorization is not going to work. I emphasize this in my approach to teaching this class. (02/13/2018)