Planning and Evaluation Tracking

College Year: **2010-2011**

Division of: Science & Engineering **Person Responsible: Jack Stanley**

Department of: Biology **Person Responsible: Michael Kopenits**

Purpose Statement:

Goal Statements	Objectives/Outcomes (including assessment tools and standards)	Results	Use of Results (including improvements and revisions)
1.Use critical analysis and scientific reasoning.	1. A) Microbiology students will analyze and correctly identify a sample of an unkown bacteria. Upon completion of this course, 90% of the students will correctly identify the unknown bacteria B) Biology majors will demonstrate critical analysis by correctly answering a minimum of 70% of the embedded questions on the final exam. C) Anatomy and Physiology students will demonstrate critical thinking skills and scientific reasoning skills by completing appropriate case studies referring to individual and / or related body systems.	1.A) Spring 2010 results: (137/158) 86.7 % of all students who completed the course correctly identified their unkown bacterium. New faculty results 14/22 (64%) correctly identified unkowns. NOTE: Fall results 98.2% of all students correctly identified unkowns. B) 65.2% of the students correctly answered the embedded questions C) Full time faculty have initiated the use of case studies on a limited basis in A&P I and a more detailed basis in A&P II for the 2009 - 2010 academic year. Student involvement and appreciation of related "real world" experiences to prepare for future in allied health professions was overwhelmingly positive. Critical thinking skills and	1.Analysis: A) We used only the spring results to evaluate both experienced faculty and new faculty teaching microbiology for the first time. All sections of classes with experienced faculty achieved over 90% success. New faculty results: 64% correclty identified unknown. ACTION PLAN: We have established multiple microbiology lab rooms in new facility to meet the pedagogical techniques from recent American Association of Microbiologists conventions. For current faculty, request funding for attendance to annual conference for undergraduate Microbiology education. All new faculty who will teach Microbiology must shadow

		comprehension of complex physiological processes as it relates to the interactions of systems increased as the semester progressed.	an experienced instructor for a minimum of one semester prior to being assigned any Microbiology class section Department chair and Micro faculty will continue to discuss options to other training and communication of skills needed to complete unkown assessments via scientific process. B) Majors Biology results have remained the same from the previous academic year. The majors biology curriculum has been and is currently being modified to meet demands in the biology field. ACTION PLAN: Coordinate training sessions for all full time and dual credit faculty to include statistical analysis, laboratory procedures and scientific methods. Continue to further modify curriculum to meet the needs of transfer students and completers. C) Upon review with A&P faculty and with the Director and Assistant Director of the ADN nursing program, case studies have shown to improve the success of the students in level one and level two.

			ACTION PLAN: to review results of student success rates in level one and level two as provided by Delton Moore comparing individual instructors within the A&P discipline. This will be used to enure all faculty are meeting current course objectives as described in the department syllabus. Department chair to provide case studies to those instructors who would like to implement them within their curriculum. Provide training session to all adjunct faculty in the use of case studies.
2.Increase student success and student demonstration of awareness and relevance of biology for future goals and career choices, including all related allied health fields.	2.A) Upon completion of the selected course (Botany, Zoology, Life Science, Genetics, Majors biology and Microbiology), students will demonstrate competency by correctly answering a minimum of 70% of the embedded questions on a comprehensive final exam. B) Anatomy and Physiology students will demonstrate basic knowledge of course objectives by correctly answering 70% of the embedded questions on the comprehensive final exam.	2.Microbiology results:68.94% correctly answered the embedded questions B).Combined A&P I and APII results; the average score on the embedded questions was 62.85 %. Highest class average was 76% (traditional class setting), 74.3 % (web based- all on line) . The lowest class average was 55% (traditional class setting), 51% (hybrid setting).	2.Microbiology results decreased ~ 1% from the previous academic year. ACTION PLAN: Questions will be reviewed this fall to ensure that they will correlate to the course objectives. Modifications or new questions will be added as deemed necessary. syllabus will be reviewed and curriculum adjusted upon review by all full time microbiology faculty. All new faculty will be required to shadow senior faculty in both lecture and lab prior to being assigned any mirobiology course sections

Life Science. Life Science course objectives, curriculum and syllabi were modified during the summer of 2010.

ACTION PLAN: Fall 2010 will have new full time and adjunct faculty teaching these courses. Department review after both fall and spring semseters to evaulate changes. Additional training and instructions to be offered as needed.

B) Analysis: Overall results for the department were below performance goals. Adjunct faculty course results were significantly below department norms. On-line classes performed slightly higher than traditional classes while the hybrid format performed significantly lower.

ACTION PLAN: Faculty within the A&P discipline discussed embedded questions as an assesment tool during pre-semester department meeting. Changes included the following: modification of questions to include format and content, ensure that all faculty including adjuncts are meeting minimum

			course objectives as set forth by department chair, evaluate additional assessment methods including the substitution of essay questions regardng physiological concepts in place of embedded multiple choice questions. final determination of assessment tool to be determined prior to final exams for fall 2010.
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revised 8/1/05