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Program Review
Form for External Review
Committee
Instructional

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Form ID
49
Division
Sciences and Engineering
Department
Biology
Program
Biology
Review Year
2005-2006
Member Names
Linda Hendrick
Division Overview
INTRODUCTION On September 25, 2006, a committee of ten Amarillo College faculty and staff members was appointed by Dr. Paul Matney, in consultation with Danita

McAnally, to review the Amarillo College Science and Engineering Division (S&ED) in accordance with established college program review protocol. This review is in keeping with the college's internal program review plan, as prescribed by the Southern Association of Colleges and Schools (SACS), to review all areas of the college on a regular rotational schedule with the primary goal of assisting each area to become more effective and efficient in the completion of its mission.

The members of the committee are as follows:

Bill Crawford, Chair
Rugenie Burkhalter
Linda Hendrick
Jon Kohler
Karen McIntosh
Judy Massie
Gay Mills
Bill Netherton
Cynthia Urbina
Eric Wallace

The self-study document was prepared

during the 2006-07 academic year under the direction of Dr. David Fike, the division chairman. Because of internal college reorganization, the review itself was delayed until the 2007-08 academic year. In the meantime, the review committee members remained on standby. Sometime thereafter, it was decided by the Office of Institutional Research and Assessment that the historic analog based self-study and committee review process would become electronic based. Following repeated delays attributed to programming a workable template for the review committee response, the review committee assembled on June 27, 2008 to begin the review process.

Danita McAnally was present at the opening meeting to give the committee its charge. Following her remarks, the committee chairman described the events to come, along with a tentative timetable, relative to the review process. Members discussed evaluation strategies and processes and a timetable to complete the review process. At this

same meeting the chairman made the following S&ED department review appointments to committee members:

Rugenie Burkhalter: Electronic Systems Technology

Linda Hendrick: Biology

Jon Kohler: Physical Science

Karen McIntosh: Instrument and Control

Judy Massie: Mortuary Science

Gay Mills: Mathematics

Bill Netherton: Editor

Cynthia Urbina: Education

Eric Wallace: Electronic Engineering Technology

Bill Crawford: Introduction

The committee then began its work and planned to meet throughout the summer months and complete the review report by mid-August. It was soon realized that the many vacation periods planned by all committee members would make this deadline impossible to meet. A request was made to administration to extend the review period into the Fall 2008 semester to give ample time to conduct the review and prepare the review report while

providing everyone involved with the opportunity to fully participate in the process. The request was approved and the timetable was revised to provide for a final report to administration no later than November 7, 2008.

The S&ED program review committee took its professional responsibility very seriously as it used the program review Self-Study report report to review the organization and operation of the division. As with all program review efforts, this committee performed its review function under the assumption that such a critique by those outside of the area being reviewed can be a rewarding and productive experience for all concerned. To that end, the committee has developed commendations, areas of concern, and recommendations as was deemed appropriate. All recommendations were approved with a majority vote of committee members. All commendations were approved with a unanimous vote of committee members.

The committee wishes to thank Dr. David Fike and his faculty and staff for the time and effort they gave in the development of a comprehensive Self-Study report.

Program/Department Purpose

State the purpose of the program/department. How is this purpose within the mission of Amarillo College?

The purpose statement is the Biology Department has a mission to provide quality, motivational instruction in foundational biological sciences in order to equip students to proceed into medical and technical fields and to provide biology education for non biology majors so they can develop in critical analyses of scientific principles and thought and be able to make responsible decisions for the good of the community.

The department purpose is aligned with the Amarillo College mission to provide educational services that enhance the quality of life for the diverse population in the service area.

Does the answer include a purpose statement for the program/department? Does the answer indicate how this program/department is within the mission of Amarillo College?

Acceptable

When was the last time the program's/department's purpose statement was reviewed/revised by faculty and staff in the program/department?

The purpose statement was reviewed 2006 with no revisions.

Does the answer indicate the last time the program's/department's purpose statement was reviewed/revised by faculty and staff in the program/department? Does the answer indicate how this program/department is within the mission of Amarillo College? within the mission of Amarillo College?

Acceptable

Concern

The review without revisions would be more meaningful if it included some language that indicated the purpose statement was still consistent with that of the college's and then list the reasons. The department should also include information about who reviewed the statement . Was a committee appointed or was a committee of volunteers solicited? What percentage of the faculty for the department participated?

If the program/department offers continuing education credits, how are these courses consistent with the mission of Amarillo College?

None

Does the program/department offer continuing education credits? Does the answer indicate how these courses are consistent with the mission of Amarillo College?

Acceptable

Does the program have admissions

policies?

no

Where are the policies published?

Are all the locations where the policies are published included in the answer?

Acceptable

Explain how these policies are consistent with the mission of Amarillo College.

Does the explanation of how the policies are consistent with the mission of Amarillo College appear to be accurate?

Acceptable

Is the program/department accredited?

no

Which agencies or organizations accredit the department/program?

Are the complete names of the agencies or organizations which accredit the department/program cited?

Acceptable

null

How many years are in the accreditation cycle?

How many years are in the accreditation cycle?

Acceptable

null

When were the accreditations affirmed or granted?

When were the accreditations affirmed or granted?

Acceptable

null

What is the current status of the accreditation?

Are the current statuses of the accreditations identified (e.g. accredited, in process of renewal, in process of candidacy, other)?

Acceptable

null

If not required, is the program eligible for accreditation?

Acceptable

null

Has this program/department sought accreditation even though it is not required (e.g. yes; If no, explain)?

Acceptable

null

Is this program/discipline required to receive approval from an external agency or organization (other than the Texas Higher Education Coordinating Board) in order to offer courses?

no

Identify the external approver(s) for the department/program.

IF the program/discipline is required to receive approval from an external agency or organization (other than the Texas Higher Education Coordinating Board) in order to offer courses, was (were) the external approver(s) for the department/program identified?

Acceptable

null

What approval schedule is required by

the external approver(s)?

Was the approval schedule required by the external approver(s) identified?

Acceptable

null

When did the program/department last receive approval?

When did the program/department last receive approval?

Acceptable

null

Is the reason why the program/department is required to receive this approval clear?

Acceptable

null

Improvements

Identify at least one example of an improvement/revision which resulted from the annual PET forms for the last five years

One improvement made from the annual PET form was the increase supply budget, the other was the purchase of microscopes. The Biology Department supply budget was substantially increased to cover the increased enrollment and new microscopes were purchased to replace the old microscopes in all laboratories.

After reviewing at least one example of improvements/revisions that resulted from the annual PET forms for the last five years, determine the extent that this program/department has used the PET forms to make improvements/revisions. Does this meet the minimum expectations for using PET forms to make improvements/revisions to the program/department?

Acceptable

Concern

The department refers to the PET form in only the broadest of terms. Reviewers do not know what the PET form was measuring or how the Biology

Department used the data discovered in the PET analysis to determine it needed new microscopes. The department refers to increased enrollment, but if that is the reason for new microscopes, they do not fully show the connection. Data should be given to demonstrate how the department uses the PET form in decision-making within the department.

Identify at least one example of improvements/revisions which resulted

from the last Program Review.

Several improvements have resulted since the last program review

The department has replaced all the microscopes in all the labs

Renovated Biology 102 to allow more courses to be taught. This room has been used extensively for the addition of new courses.

Acquired permanent multi-media equipment for all labs and almost all lecture rooms in our building.

Renovated Build C West campus into a lecture and laboratory facility. Which has allowed the department to offer courses on West Campus

After reviewing at least one example of improvements/revisions that resulted from the last Program Review, determine the extent to which this program/department values the Program Review process to make improvements/revisions.

Acceptable

Concern

The Biology Department mentions several improvements since the last Program Review, but does not refer to it specifically. The question could be better answered by defining a correlation between the previous review and resulting improvements. Did the prior Program Review recommend new microscopes, a renovated Biology lab, or adding multi-media equipment?

Identify all the delivery approaches used for courses within this program/department: (Select all that apply.)

traditional classroom, web,

After reviewing all delivery approaches for courses within this program/department, is this

program positioned for growth? Does the committee have recommendations for delivery options which will provide additional growth?

After reviewing at least one example of improvements/revisions that is a response to accomplish a strategy or tactical objective within the Strategic Plan 2010-2015, determine the extent to which this program/department has contributed to the implementation success of the Strategic Plan? Does this department/program understand how it relates to the institution's future based on the Strategic Plan?

Acceptable

Concern

No work from the department is available for review on this question.

Identify at least one example of an improvement/revision that is a response to accomplish a strategy or tactical objective within the Strategic Plan 2010-2015.

The Biology department has made several contributions to the achievement of the Strategic Plan. First, the faculty have developed two new online courses, BIOL1308 Life Science I, BIOL 1108 Life Science I lab, BIOL 1309 Life Science II, and BIOL 1109 Life Science II lab, which has allowed students to complete an associates degree online. Faculty are currently developing other courses in this area. The Biology Faculty are also involved in the development and delivery of the Andragogy 101, a new faculty certification program, as well as the Part-Time Faculty Certification program. The department is also offering courses in Hereford and Dumas to develop the viability of these campuses.

After reviewing at least one example of improvements/revisions that is a response to accomplish a strategy or tactical objective within the Strategic Plan 2010-2015, determine the extent to which this program/department has contributed to the implementation success of the Strategic Plan? Does this department/program understand how it relates to the institution's future based on the Strategic Plan?

Acceptable

Concern

The Biology Department could more fully answer the question by including references to the specific items in the Strategic Plan that are addressed by the development of new online classes and class offerings on external campuses. Both those endeavors are useful, but the department should show a direct correlation to specifics of the Strategic Plan.

Also, the department should explain the rationale behind Biology faculty involvement in Andragogy 101 and the Part-Time Faculty Certification program. Again, it should address the relationship to a specific point in the Strategic Plan.

Does this Committee have recommendations as to how this program/department may contribute to the implementation of the

Strategic Plan?

Acceptable

Provide names and titles of those who determined the process used to assess outcomes of the program and/or courses in the department.

Dan Porter - Professor of Biology, Claudie Biggers - Assistant Professor, and Susan Burgoon Instructor are currently serving on the college wide outcomes assessment committee. They aligned course content with general education competencies. All courses in the Biology department address Application of Critical Thinking skills, Communication Skills, Technology Literacy, and Ethics and Diversity. The last competency is the most difficulty to measure. Additionally BIOL 1406 and BIOL 1407 measure Mathematical Skills competency.

Has the program/department had a broad base of involvement from a majority of faculty and staff with the program/department regarding implementation of student learning outcomes of the program(s) (or department) and courses? What recommendations does the committee have for increasing involvement?

Acceptable

Concern

Only three members of the faculty address outcomes assessment for the Biology Department. Knowing what percent of the whole Biology Department,

faculty and staff those three individuals represent would be helpful.

An inter-departmental review of the work for the three-person committee, with opportunity to suggest changes, would involve more of the department in the outcomes assessment process.

Explain the primary reasons behind the competencies that were selected.

The Biology department competencies are measured by success in the course and in future courses. This is measured qualitative by discussions with the Nursing faculty and Allied Health Faculty and quantitative by completion rates.

Do the selected competencies appear to be valid?

Unacceptable

Recommendation

The department needs to clearly define its assessment of competencies. "Success in courses and in future courses" does not specify what grade a student must achieve to qualify as successful. Does the student only have to pass the class?

The department could also provide more information about qualitative discussions with faculty from other divisions to understand how these discussions apply to measuring competencies or outcome assessment. Are they documented or tracked in any way? Are the discussions formal and do they follow a consistent format with consistent questions each semester? How is information from the discussions used for improvement in the future?

The department needs to address analysis of outcomes and provide links to assessment data.

Identify the primary reasons for the assessment tool(s) selected.

The department assessment tools are very limited and were selected to measure the success of the students transfer on to the nursing, allied health, or other colleges.

Will the assessment tool(s) selected provide valid and reliable results?

Unacceptable

Recommendation

If the assessment tool is student grades and if the benchmark for success is identified (grades A through C in Biology classes, non-F grades in Nursing or Allied Health classes, etc), the tool should provide valid and reliable results. If the assessment tool is measuring the success of students who transfer to other colleges, then again, the bench mark for success will need to be identified. Also, the availability that data will be available after the student leaves AC is questionable.

Evaluate the assessment approaches to date.

The assessment tools and outcomes that indicate success are very limited and are not specific to this department. They need to be reevaluated and revised to meet the current standards set by the college. The department needs to develop specific outcomes, how to collect artifacts, a rubric to score artifacts, and a success indicators for these activities.

Will the assessment approaches(s) selected provide valid and reliable results?

For student or program/course outcome assessments, review the program's/department's five-year graph(s) of quantitative results or

provide a brief narrative summary of qualitative results.

Currently the department outcomes assessment is limited and needs to be developed to collect data that could be evaluated in the future. The majority of the data is qualitative and therefore is difficult to quantify

Review the program's/department's five-year graph(s) of quantitative results for student or program/course outcome assessments, or provide a brief narrative summary of qualitative results.

Unacceptable

Recommendation

As discussed above, the department does not document the qualitative data within this review, nor does it clearly identify or document the quantitative results it mentions. No five-year results are available for review.

What changes have been made in the curricula of the program/department because of the analysis of these results?

The department has not made changes to curricula based on these results.

Have any changes been made in the curricula because of the analysis of these results?

Acceptable

Review the five-year graph(s) of course completions for the program/department. Explain any increase or decrease that is more than a one-year anomaly.

The percent of student completion is fairly consistent for the five year period. The small fluctuations cannot be tied to any specific event, course, or instructional practice, but a trend that surfaced is the number of students to faculty ratio reached its highest at the same time the completion was the lowest. This has not been tested but there seems to be a correlation between student to faculty ratio and student success.

Does the review of the five-year graph(s) of course completions demonstrate the use of analysis to implement a plan of action for retention? Is the analysis of any increase or decrease that is more than a one-year anomaly accurate?

Acceptable

Concern

The extent of the analysis is "fairly consistent." The department makes the assertion that a link exists between low student-to-faculty ratios and a higher completion rate, but presents no solid data to substantiate that theory.

Provide the program's/department's plan of action for improving any identified problem or results from the implementation of the plan of action.

The faculty developed a plan of action in the Biology Department to lower class size to 24 students. This is in response to the evaluation of student to faculty ratios and student completion numbers. The faculty recommended that the class size should be reduced to increase student success, a critical objective in the strategic plan. The department currently exceeds the student to faculty ratios that is required by all professional organizations in biology, such as Human Anatomy and Physiology Society, National Science Teachers Association, and American Society for Microbiologist, all of which require a ratio of 24:1.

Will the plan of action likely improve the number of course completers?

Acceptable

Does the program/department provide

for alternative methods of awarding credit?

CLEP Advanced Placement Credit for Experience

Has the program/department provided for alternative methods of awarding credit? If not, which alternative methods would be recommended?

What approaches are used to assure outcomes are comparable to those expected of students who enrolled and completed the course?

Acceptable

Concern

The department does not address the question of how the outcomes of alternative methods of awarding credit are comparable to those who enroll in and complete a class.

For general education and/or core curriculum required by this program/department, identify the relevant competencies approved by the Academic Affairs Committee (see Catalog section entitled Degrees and Certificates: General Education Competencies).

Dan Porter - Professor of Biology, Claudie Biggers - Assistant Professor, and Susan Burgoon Instructor are currently serving on the college wide outcomes assessment committee. They aligned course content with general education competencies. All courses in the Biology department address Application of Critical Thinking skills, Communication Skills, Technology Literacy, and Ethics and Diversity. The last competency is the most difficulty to measure. Additionally BIOL 1406 and BIOL 1407 measure Mathematical Skills competency.

Have all relevant competencies for general education and/or core curriculum been identified for this program/department? If not, which are obviously a part of this program/department's general education competencies?

Acceptable

Explain how outcomes for the competencies have been assessed and achieved and provide links to the documentation.

The Biology department competencies are measured by success in the course and in future courses. This is measured qualitative by discussions with the Nursing faculty and Allied Health Faculty and quantitative by completion rates.

Is the explanation of assessment approach(es) for general education competencies (outcomes) thorough? Is the analysis of the results accurate? Have links to documentation which verify the assessment results been included?

Unacceptable

Recommendation

The explanation of assessment approaches is not thorough. As was mentioned above, the department does not clearly establish its benchmark for success in a class or future courses and does not define qualitative discussion with members of other disciplines in a way that makes analysis clear. It also needs to provide links to documentation verifying the assessment results.

Outline a plan for correcting any weaknesses.

The assessment tools and outcomes that indicate success are very limited and are not specific to this department. They need to be reevaluated and revised to meet the current standards set by the college. The department needs to develop specific outcomes, how to collect artifacts, a rubric to score artifacts, and a success indicators for these activities.

If assessment results and analysis are included, is there a plan for correcting any weaknesses included?

Acceptable

Concern

The plan to correct weaknesses in assessment tools and outcomes would be stronger if it included specifics such as the following:

- Will a task force be formed to look at the problem?

- Who will be in charge of the re-evaluation and defining new success indicators?
- When will they begin meeting?
- Is there a time line for deliverables?

Do students/graduates in this program/department have to be certified or licensed?

no

Review the results for certification/licensure results of the program/department and/or job placement for the past five years. Explain any increase or decrease that is more than one-year anomaly.

Provide a plan of action for the identified problem.

IF students/graduates in this program/department have to be certified or licensed, do the results over the past five-years indicate that certification/licensure have been equal to or greater than the average of the past five-years AND/OR equal to the statewide or national benchmark for this certification/licensure? IF NOT, does the analysis and plan of action

appear that the program/department has thoroughly reviewed the problem?

Acceptable

Is the program's/department's plan of action for improving any identified problem or results likely to improve the certification/licensure results? Did program/department explain any increase or decrease that is more than a one-year anomaly? Does the plan correct any weaknesses included? If not, what is missing?

Acceptable

IF the department or program offers one or more technical programs (Associate in Applied Science or Certificates), has the program/department included an explanation of the job placement success during the past five years AND are these results at least equal to the statewide annual benchmark (90%)?

Is the analysis of any increase or decrease that is more than a one-year anomaly accurate?

Is the program's/department's plan of

action for improving any identified problem or results likely to improve the job placement rate for graduates of the technical program(s)? If not, what is missing?

IF the department or program offers one or more technical programs (Associate in Applied Science or Certificates), has the program/department included an explanation of the job placement success during the past five years? Is the analysis of any increase or decrease that is more than a one-year anomaly accurate?

Acceptable

Is the program's/department's plan of action for improving any identified problem or results likely to improve the job placement rate for graduates of the technical program(s)?

Acceptable

Curricula

Does the program/department have affiliation(s)/agreement(s)/contract(s) with any other entity for the purpose of

delivering instructional content?

no

Review the affiliation(s)/agreement(s)/contract(s), consider Amarillo College's mission, and then make a recommendation to:
Provide an analysis of the review.

If the program/department has affiliation(s)/agreement(s) with any other entity for the purpose of delivering instructional content, do these affiliations/agreements make it clear that Amarillo College maintains the responsibility for controlling all aspects of the educational program? Has the College ensured the quality of the program with these affiliations/agreements? If so, how? What is the schedule for reviewing the quality of these programs? Has the College ensured that programs remain with Amarillo College's mission?

Acceptable

How many curricula changes were approved by the Academic Affairs

Committee during the past five years? other

The faculty suggested the following changes to the curricula in the last five years:

The addition of an AS in Biotechnology BIOT.AS to meet the needs of the panhandle in this growing field. This was approved. The new degree required the development of two new courses BIOL 2471-Biotechnology I and BIOL 2472-Biotechnology II.

The addition of BIOL 2306-Environmental Science to the list of electives for the BIOL.AS degree. This gave the students more options within this degree. This change was approved.

Dropped BITC 1471-Biotechnology I and BITC 1472-Biotechnology II from our courses, due to lack of transferability. This was approved.

Removed the high school Chemistry and Biology prerequisite for BIOL 1406- Biology I for majors. This was approved.

Changing the description of BIOL 1108-Life Science I laboratory, BIOL 1308-Life Science, BIOL 1406-Biology I, and BIOL 1407-Biology II to reflect current topics.

Dropped BIOL 2189 one hour Special problems in Biology and the changing the two hour special problems from BIOL 2289 to BIOL 2279 Special problems. This was to meet changes in the Texas Higher Education Coordinating Board common course guide manual.

Moving the digestive system from BIOL 2401 Human Anatomy and Physiology I to BIOL 2402 Human Anatomy and Physiology II to reduce the time demands in BIOL 2401.

The addition of a Pre-Physician Assistant PAST.AS degree. This program mirrors the BIOL.AS with only a few acceptations.

Which steps in the curricula change process had faculty involvement prior to submitting the curricula proposal(s) to the Academic Affairs Committee?

The faculty were involved in every step of the proposal development.

Was the departmental faculty

involvement documented and broad in representation? If not, what steps within curricula change process should have had more proof of greater departmental faculty involvement? Is the primary responsibility for curricula changes under the control of faculty? Does the program have a qualified faculty member in charge of the program's coordination and curriculum development?

Acceptable

Concern

The only documentation of faculty involvement is the phrase "faculty suggested the following changes." The specific faculty members who were involved in curricula changes are not identified. The department does not document the process for suggesting or approving change within the department.

The list of curricula changes is inconsistently formatted and contains numerous spelling and grammatical errors.

Is any program within the department a

technical program (e.g. AAS or certificate)?

no

When was the last Advisory Committee meeting?

Provide a link to the minutes of the last Advisory Committee(s) minutes in the Electronic Archives.

Provide a link to the appropriate committee membership of the Advisory Committee(s) in the Electronic Archives.

If the department offers an AAS and/or certificate, do the minutes of the Advisory Committee prove that the curricula for each program is appropriate to the degree and/or certificate? Has the Advisory Committee been consulted in designing each degree and certificate? Has the Advisory Committee met at least once a year and been provided ample opportunity to guide the faculty in curricula changes?

Acceptable

Is the membership of the Advisory Committee broad enough to provide

the scope of advice necessary for input on curricula? If not, what changes are recommended to the program/department?

Acceptable

Enrollment Data

After receiving the data indicating the number of students enrolled in the program/department, by total students, number of full-time equivalents, and number of completers, determine if there is more than a one-year anomaly. If so, provide the faculty and staff analysis of their assessment of the problem.

The numbers of majors, FTE, and percent completion rates are fairly constant from year to year, but the total of students, contact hours, and credit hours are all increasing steadily. This trend will eventually plateau as it reaches the space limitation in the Department.

The faculty did not see any problem with the data.

Does the analysis by the faculty and staff of this data address any obvious problems/declining statistics?

Acceptable

Concern

The only analysis is "fairly constant" and

"increasing steadily." The analysis makes the illogical claim that FTE is remaining constant although contact hours and total number of students is steadily increasing. The department presents an assumption about the growth trend without providing any evidence to substantiate it.

"The faculty did not see any problem with the data" does not explain which faculty had a chance to analyze and react to the data. Were all the faculty involved or just a few?

The analysis would be more meaningful if it discussed growth in percentage of increase or decrease over a specific period of time. The analysis should be quantified. Including charts or graphs or links to graphs or charts of the information would be helpful.

Create an action plan for needed improvement and commendation for any dramatic improvement.

The department has three courses with consistent low enrollment, BIOL 2316-Genetics, BIOL 2471-Biotechnology I, and BIOL 2472-Biotechnology II. All of these are very specialized sophomore courses that are essential in the completion of a degree. The genetics is one of the last courses in the biology degree and is only offered in the fall. This cycle prevents students, who had poor advising, from graduating or they must transfer it back into Amarillo College to complete their degree. The other side of this cycle is it prevents the department from offering this course twice with low enrollments. This problem will persist into the future. The biotechnology courses are fairly new and will take a couple of years to establish. These courses are currently offered every other year to prevent multiple low enrollments. The main solution to this problem is advertisement and recruitment. The department will evaluate the best method of advertisement and recruitment into this program and will begin the planning stage during the 2007-2008 budget process and will implement the recruiting process during the 2007-2008 year.

Does the action plan or commendation address the problem addressed within the analysis? Does it appear that implementation of the action plan will resolve the problem and correct the decline?

Unacceptable

Recommendation

The analysis from the question above indicates that no problem is present, yet three classes that consistently have low enrollment are discussed here.

The problem with the genetics course is linked to poor advising, but the department does not suggest a plan to correct the advising problem. The action plan should include some means of addressing this problem with advising and counseling. Another issue linked to the genetics class is the cycle in which the class is offered, but the department fails to fully explain why the cycle is flawed. It does, however, indicate that the problem will "persist into the future" without addressing how the problem might be fixed.

The two biotechnology classes are said to have low enrollments because they are new and not well-established. The department recommends advertising and recruitment, but does not offer a real plan of action. Rather than stating that the department will evaluate the best method of advertising and recruitment, the action plan should include details like contacting College Relations for help with an advertising campaign or the college recruiters for help with recruitment. The action plan might also outline who will be responsible for following through with advertising and recruitment changes to assure the low enrollment classes receive attention.

Does the External Review Committee have any other analysis or recommendations for increasing enrollments based on the program/department's data?

Acceptable

For programs/departments with majors, review the graphs of program majors and the number of new majors by year. Provide an analysis of the

program's/department's faculty and staff assessment of the problem and an action plan for needed improvement and commendation for any dramatic improvement.

The department has four majors, two of which are new BIOT.AS Biotechnology and PAST.AS Pre-Physicians Assistant. These programs both have low enrollment due to lack of advertisement. The department will evaluate the best method of recruitment into these programs and will implement during the 2007-2008 budget process.

Does the analysis by the faculty and staff of this data address any obvious problems/declining statistics regarding students enrolled as majors within the program/department? Does the action plan or commendation address the problem addressed within the analysis? Does it appear that implementation of the action plan will resolve the problem and correct the decline? Does the External Review Committee have any other analysis or recommendations for increasing the number of students majoring in this program/department based on this program's/department's data?

Unacceptable
Recommendation

The department provides insufficient analysis of the data. It declares the low enrollment of two classes is caused by "lack of advertisement," but gives no evidence to substantiate the conclusion.

No action plan exists to correct the problem.

Resources

Review the five-year graph(s) of the student-to-faculty ratio in the program/department.

Explain any increase or decrease that is more than a one-year anomaly.

The student to faculty ratio reached a high in 2001, at the same time we had record enrollment in the department. The department hired a full time faculty member in 2002 to reduce this number. Enrollment continued to increase, therefore three new full time faculty in 2004 to keep the ratio manageable. The faculty also noticed as a student to faculty ratio increases, the student completion rate decreases.

Does the analysis by the faculty and staff of this data address any obvious problems/declining statistics regarding student-to-faculty ratio within this program/department?

Acceptable

Provide an action plan for improvement of any identified problem.

The faculty developed a plan of action in the Biology Department to lower class size to 24 students. This is in response to the evaluation of student to faculty ratios and student completion numbers. The faculty recommended that the class size should be

reduced to increase student success, a critical objective in the strategic plan. The department currently exceeds the student to faculty ratios that is required by all professional organizations in biology, such as Human Anatomy and Physiology Society, National Science Teachers Association, and American Society for Microbiologist, all of which require a ratio of 24:1.

Does the action plan or commendation address the problem addressed within the analysis? Does it appear that implementation of the action plan will resolve the problem and correct the decline? Does the External Review Committee have any other analysis or recommendations regarding student-to-faculty ratio within this program/department?

Acceptable

In the database for [Roster of Instructional Staff](#) (also known as Roster of Faculty), review the credentials of each full-time and part-time faculty member within the program/department. If any faculty member does not meet the SACS and THECB requirements, evaluate whether additional documentation is significant to grant an exemption.

All faculty in the department meet the requirement by SACS and THECB for the courses they teach.

Identify any faculty teaching a transfer course which, according to the information within the database

for [Roster of Instructional Staff](#) (also known as Roster of Faculty) do not meet the requirements of faculty teaching a transfer course and explain the credential problem. Identify any faculty teaching a technical course which, according to the information within the database for [Roster of Instructional Staff](#) (also known as Roster of Faculty) do not meet the requirements of faculty teaching a technical course and explain the credential problem based on SACS requirements and/or THECB requirements. Identify any faculty teaching a developmental course which, according to the information within the database for [Roster of Instructional Staff](#) (also known as Roster of Faculty) do not meet the requirements of faculty teaching a developmental course and explain the credential problem.

Acceptable

Concern

The list of faculty is not up to date.

List the names and the last date for all full-time faculty evaluations based on the

schedule indicated in the Faculty Performance Review (FPRP).

If any full-time faculty member (or Board-appointed faculty member) has not been completed the Faculty Performance Review (FPRP) within the past two years and is listed in the aforementioned Roster of Instructional Staff (also known as Roster of Faculty), identify the faculty member's name and the date of the last FPRP.

Acceptable

List the names of each part-time faculty and the last date of evaluation by students and supervisor for each course taught.

If any part-time faculty member has not been evaluated by both students and supervisor for each course taught within the past year and is listed in the aforementioned Roster of Instructional Staff (also known as Roster of Faculty), identify the faculty member's name and state the specific problem.

Acceptable

Amarillo College's Board Policy Manual defines each faculty member's academic freedom as "full freedom in the classroom in discussing the subject being taught and to pursue research and publications. However, a faculty member must not attempt to force on students a personal viewpoint and must at all times allow for diversity of opinion." Has anyone in the program/department filed a grievance for violation of the aforementioned academic freedom?
no

If anyone within the department has filed a grievance for violation of academic freedom based on the definition stated in Amarillo College's Board Policy Manual, briefly describe the violation (excluding personal identifiers) and the total number of violations.

Acceptable

Which of the following library collections/resources/services have been used by faculty, staff and/or students within the past five years? (Select all that

apply.)

Does it appear that the library collections/resources/services used by the faculty, staff, and/or students within the past five years are accurate and thorough?

Acceptable

Concern

The department does not list any library collections, resources, or services. Have no library resources or services been used? If so, that should be stated.

Which two or three collection/resources/services should be improved to support Amarillo College's mission regarding teaching and service?

The two areas in the library that faculty identified that needed improvement or simple maintained is in the development of on-line courses at the E-Learning center and computer tutorials. The ELS needs to be expanded with the addition of current technology. The computer tutorials also need to be updated and expanded. The current tutorials that used are limited in number. Furthermore the library needs to expand the collection of online tutorial to serve students in web courses and students at satellite campuses.

Has the program/department identified which two or three collections/resources/services should be improved to support Amarillo College's mission regarding teaching and service?

Acceptable

Concern

The department identified the eLearning Center as an area that needs improvement. It is housed in the library but not part of the library functionally. The answer does not address the question.

Does your program/department have discipline accreditation?

no

How has the library participated in this discipline's accreditation?

Does the program/department have a discipline accreditation? IF SO, has the library participated in completing the approver's evaluation?

Acceptable

After assessing the strengths and weaknesses of the program's/department's access to technology, what improvements would ensure that students have access and training in the use of technology?

The biggest problem with technology is the lack of current technology in the faculty offices, in the classrooms, and in the laboratories. This deficiency must be overcome if the faculty and students are to move into a technological world. The students must be taught using current and relevant technology in lecture as well as the laboratory. The software is advancing faster than the hardware that is available to the faculty. This is a critical concern of the entire faculty and is addressed in the strategic plan.

Does the program's/department's assessment of strengths and weaknesses include ways to improve both students' access to & training in the use of technology?

Acceptable

Concern

The department mentions lack of adequate computer hardware for faculty as a problem, but does not identify any strengths associated with technology.

What improvements would ensure that students use technology?

The purchase of new technology for faculty, laboratories, and classrooms .

Does the program's /department's answer include improvements that would ensure that students use technology? Are the recommendation(s) of this program/department feasible?

Acceptable

Concern

The recommendation to purchase new technology would be much more effective if it specified what technology was required. The department should provide a list that included specific items such as

new laptop computers for faculty, high definition projectors in classrooms, or new microscopes that met a certain criteria.

Review program/department operations. Does any operation present the possibility for violations of security, confidentiality, or integrity of student records?

no

What changes need to be made to prevent violations of this nature?

After a review of this program's /department's operations based on this Self-Study and any other information available to this Committee, does any operation present the possibility for violations of security, confidentiality, or integrity of student records? If so, describe those operations and identify the violation possibility in detail.

Acceptable

What changes need to be made to prevent violations of this nature?

Acceptable

Which support services need to be strengthened to better serve students in this program/department?

The faculty feels the Student Support Services are adequate.

Explain what aspects of the services need to be strengthened.

Do the Self-Study recommendations of this program/department for support services that need to be improved appear to be valid?

Acceptable

Describe any indicators or problems that prevent a healthy, safe and secure environment for the students, faculty and staff of this program/department.

The faculty identified several safety concerns within the department. The first is the lack of safety equipment in the laboratory, such as eye wash stations, showers, safety glasses, fire blankets, and emergency shut off valves for gas and electricity. The second was the overcrowding in the labs with students and supply carts. According to National Fire protection Association the laboratories must have 50 sq/ft per student and According to Occupational Safety and Health Administration 58 sq/ft per student and the department currently have 20 sq/ft per student well below national recognized safety standards. This is a critical safety concern with dissection, student flow, fire safety, and chemical transport, and will need to be corrected promptly

Are recommendations to assure a healthy, safe and secure environment for staff and students of this program/department valid? Are any of these recommendation(s)

more significant and/or urgent?

Acceptable

Concern

The response has a few problems in grammar and capitalization.

Describe any indicators or problems that hamper adequate physical facilities, both on and off campus, to meet the needs of the program/department.

The faculty identified several areas where the department did not meet federal ADA requirements. First the outside doors to the BiologyBuilding do not have automatic opening capabilities nor does the interconnect between BiologyBuilding and Ordway Hall and this makes it difficult to enter and move between buildings. The second area of concern is the laboratory rooms do not have ADA compliant student stations, sinks, or space between tables. This is also the concern with the restroom facilities, which currently do not have handicap accessible stalls in the womens or the mens bathroom.

Do any of the problems or concerns regarding adequate physical facilities appear to be significant and/or urgent? Are there any other needs which this Self-Study didn't cite but are critical based on other information? Which of these needs are most significant and/or urgent?

Acceptable

Budget

Which program/department outcomes have resulted in budget requests to date?

Microscopes, media rooms, models, and room renovation.

Have any of this program's/department's outcomes resulted in budget requests to date? If not, why not?

Acceptable

Concern

The department should write its responses in complete sentences.

Project the program's/department's strategic initiatives for the next five years based on the program's/department's outcomes.

The department identified strategies that are inline with the Amarillo College Strategic Plan and the requirements in order to complete these.

Strategy 1.1 Target degrees for online delivery

The biology department is committed to develop and deliver online or hybrid courses in anatomy and physiology, life science, biology, pre-A&P, and microbiology. This will aid in the development of degrees that require these as prerequisites.

Requirements: 1.1.a Hire additional faculty

1.1.b Update faculty technology with current technology

Strategy 1.2 Align workforce development efforts with projected local demands

The biology department is a service department for nursing and allied health and any change in enrollment in these programs will affect the enrollment in this department. If ACs plan is to double nursing enrollment then this will be seen in our department as well. The biology department faculty are aware of this change and will meet the challenge.

Requirements: 1.2.a Hire additional faculty

1.2.b Replace and update laboratory equipment to include models, mobile student computer stations, and other equipment.

1.2.c Mediate all labs and classrooms that current faculty use

for instruction.

Strategy 1.4 Expand regional access to higher education

The biology department is reaching maximum enrollments that laboratory space can permit. Several faculty have stepped up the challenge of developing on-line and hybrid courses. This will allow an increase in enrollment without increasing space, but this type of instruction is limited.

Requirements: 1.4.a Hire additional faculty

1.4.b Update faculty technology with current technology

1.4.c Renovate or construct new facilities to house laboratory and lecture space.

Strategy 2.2 Expand student life and other programs

The biology department is committed to support for the biology club. Currently three full time faculty members are co-sponsors for this large student club.

Requirements: None for this to be continued

Strategy 3.1 Identify and promote student goal attainment

The biology faculty realize the importance of advisement and its role in students reaching their goals in a timely manor. All faculty in the department will advise new student. One faculty member developed a website to aid other faculty and counselors in the advising process. Another issue important in increasing student success is to lower the student to faculty ratio.

Requirements: 3.1.a Hire additional faculty

3.1.b Decrease laboratory size to 24. This has already be seen to increase student success.

Strategy 6.1 Leverage partnerships to expand opportunities

The department is actively involved and provides substantial support for partnerships: one is the to AmarilloCollegeNaturalHistoryMuseum and the High Plains Regional Math, Science, and Engineering Fair. The college is very supportive of both partnerships.

Requirements: None for this to be continued

Strategy 8.1 Expand learning through technological innovation and delivery

The department is committed to expanding learning through technological innovations and has developed numerous web and hybrid courses. The department is also in the process of developing other web and hybrid courses. The faculty are also committed to the implementation of the web portal system. The majority of the faculty have been

through one or more trains on implementation. Several faculty moved their grading to the portal as well. The faculty are also developing technological delivery within the laboratory setting.

Requirements: 8.1.a Update faculty technology with current technology

laboratory rooms
connectivity in the build to accommodate these improvements

8.1.b Acquire mobile student computer stations for all and increase the

Strategy 9.2 Secure new sources of revenue

The department is actively pursuing new sources of funding. Faculty are involved in writing grants to support a variety the department activities and developing relationships with local industry and corporation to support several department activities.

Strategy 10.2 Recruit and retain faculty who demonstrate and deliver targeted skills and productivity.

The faculty are supportive of this activity by developing an online course template for four courses, which will allow part-time faculty the opportunity to deliver these courses at a distance. Three faculty in the department are active in the development and delivery of the part time faculty certification program as well as in the full time Andragogy 101 program.

Has this program/department been able to project strategic initiatives for the next five years based on the program's/department's outcomes? If not, what appears to be blocking this program/department from accomplishing this?

Acceptable

Concern

The writing contains some grammar errors and numerous typographical

errors. Careful proofreading and correcting of those errors would substantially improve the response.

Strategy 1.1 lists several classes that the Biology Department is dedicated to developing for online delivery; then, Strategy 8.1 says the department has already developed numerous web and hybrid classes. The department should list the classes already developed. It should also list with Strategy 10.2 the classes targeted for templates. The department should also show how the class templates will recruit or retain faculty with good teaching skills.

Strategy 3.1 describes a web site developed by a Biology faculty member to help other Biology faculty with student advising. The department should provide a hyperlink to that web site, which would be helpful to reviewers. Similarly, in Strategy 6.1 hyperlinks to either of the partnership organizations would strengthen the writing.

Discussion of Strategy 9.2 would be more compelling if it included some specifics

about the grants that are being pursued. Specifically what department activities would the grants support? Explain how relationships with local businesses would be beneficial to the Biology department.

Publications

If the program/department publishes any advertising or recruitment documents (electronic or paper), do the documents accurately represent Amarillo College and the program/department?

yes

If no, explain what is inaccurate.

IF the program/department has published any advertising or recruitment documents (electronic or paper), check at least one copy of each document and determine whether it accurately represents Amarillo College and the office/department?

Acceptable

Concern

The department needs to provide a description of advertising and recruitment documents as well as a brief narrative explaining how they align with AC's and the Biology Department's goals.

IF anything appears to be inaccurate, identify the apparent violation.

Acceptable

Does the program/department publish any documents (electronic or paper) with references to SACS accreditation?

no

Are the references in compliance with SACS approved statement?

Which reference is not in compliance?

Describe how you will assure compliance for all references in the future.

IF the program/department has published any document(s) with a reference to SACS accreditation, are all references consistent with the approved statement? (Approved reference: Amarillo College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees. Contact the Commission on Colleges at 1866 Southern Lane Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Amarillo College.) IF any references

are inconsistent, identify all documents with the inconsistent reference(s).

Acceptable

IF the Self-Study did identify the inconsistencies, does the plan for assuring future compliance appear to correct the problem? IF the Self-Study did NOT identify all inconsistencies, what plan does this Committee recommend?

Acceptable

Other

State any additional comments/concerns which may impact this program/department during the next five years.

IF additional comments/concerns were included in the Self-Study regarding items which may impact this program/department during the next five years, what recommendations and/or concerns are warranted? IF NO such items were included in the Self-Study but this Committee feels such comments

or concerns are valid, cite them and include any relevant recommendations.

Acceptable