The mission of the College of Science states:

The College of Science provides quality education in the natural sciences and mathematics. The college offers majors and minors in seven departments (Botany, Chemistry, Geosciences, Mathematics, Microbiology, Physics, and Zoology). The college also supports students through its Developmental Mathematics Program. The departments and programs of the College of Science support professional and graduate school preparatory programs, and contribute significantly to the general education of students by improving scientific understanding of the natural world and quantitative literacy. Education is provided through formal classes, laboratory and field experiences, and undergraduate research projects. Student learning is also supported by departmental clubs and professional preparatory organizations. The college promotes science and mathematics teaching through the Center for Science and Mathematics Education, and community outreach through such facilities as the Layton P. Ott Planetarium and Museum of Natural Science.

The programs in the Department of Zoology are designed to contribute to the overall mission of the College of Science by providing general education courses, support courses for other programs, and major programs that prepare students for employment or further education.

The program review team noted a number of strengths in the current program: (1) “the credentials, productivity and teaching quality of the faculty”; (2) “the climate of collegiality”; (3) “excellent leadership of the Chair”; (4) “research productivity and support of undergraduate research experiences”; and (5) “effective use of resources provided and overall resourcefulness.”

The Dean agrees with the determination of the program review team regarding the strengths of the Department of Zoology. It has been and continues to be a strong and productive department, with a faculty and staff that work well together. The Department is also strongly committed to working closely with students to help them succeed. This is particularly apparent in working with students involved in research projects.

Along with its strengths, the review team identified a number of challenges for the programs in the Department of Zoology and made numerous recommendations. Some of the recommendations are specifically focused on the Zoology Department while others are addressed to the College of Science and the University. Given the number of recommendations made by the review team, this response will address them in order as presented in the report.
Recommendations Related to Zoology Department Responsibilities:

(1) **Review and revise the current Mission Statement and Program Learning Outcomes.**

The Dean agrees with the departmental response that revision of the mission statement is a somewhat minor issue. While the Dean agrees that certain aspects of the current mission statement could be tweaked to better reflect a more formal mission statement, and that perhaps portions of the statement are more descriptive of the program rather than mission-oriented, the Dean feels that the statement does effectively represent the Department. Of course it is always useful to review the departmental mission from time to time, and the Zoology Department may wish to do so again sometime in the future.

The Dean does agree with the review team that it would appropriate to eliminate Outcome 5 from the list, as it is not specifically a student learning outcome, but a process for the faculty to evaluate learning outcomes.

(2) **Integrate learning outcomes into individual courses and include on syllabi.**

The Dean feels that the departmental response is appropriate.

(3) **Assist faculty in expanding the use of active learning pedagogies and diverse assessments in individual courses.**

The Dean feels confident that the Zoology faculty continually evaluate appropriate pedagogies for their courses and make use of opportunities for teaching innovations such as the Teaching and Learning Forum.

(4) **Review and revise program, advising, and marketing materials to reflect a balanced emphasis for students seeking jobs in zoology and graduate studies with those seeking pre-professional studies.**

The College strives to provide effective advising for all students to meet their personal goals. In particular, the College has a general advisor who meets with students regarding their general education requirements and provides general advisement early in their academic careers. The departments then provide advisement for students in particular majors, including advisement for graduate programs and more immediate job opportunities. Pre-professional advising occurs throughout the College in different areas depending on the type of program the student is interested in. Finally, a liaison to the College of Science from Career Services provides advisement in career options as well as application to graduate schools.

There is also an ongoing emphasis in the College of Science to develop appropriate promotional and recruitment materials. In order to help encourage increases in the numbers of majors in all programs, as well encourage more students to take courses from the College
of Science for their general education, the College has a very active publicity and recruitment committee with representation from every department in the College. The College’s general advisor also supports the publicity and recruitment activities of the committee. The committee has recently revised recruitment materials that are provided to the recruitment office and assisted in updating our departmental and college web pages. In addition, a monthly College of Science E-Newsletter is published out of the Dean’s office which features one department or program in each issue, along with special announcements.

(5) Provide for peer evaluation of teaching for newer faculty earlier in the tenure process and promote peer evaluation as a constructive tool.

The Dean believes that the Zoology Department has been very proactive in mentoring junior faculty and providing timely feedback of faculty teaching. The present policy of the University is also quite proactive in this regard, ensuring that all junior faculty, and all adjuncts and term faculty, must have every course formally evaluated by students. Those evaluations are made available to the Chair for the second-year tenure review and to all tenure-review committees in the third and sixth year. The tenure candidate also has the option of establishing a peer review committee one year in advance of the third and sixth tenure reviews as described in the University’s Policy and Procedures manual. The Dean also informs the tenure candidate of that right one year in advance of both the third and sixth-year reviews.

(6) Provide for a more consistent, targeted approach to mentoring new faculty.

Please see the response to recommendation 5 above.

Recommendations Relating to College/University Responsibilities:

(1) Review the Tenure Document for the College of Science, reconsidering the usefulness of “categories” in research and “channels.”

The Dean will raise the issue with the Chairs’ Council to determine if there is any perceived need to revisit the document which was most recently revised in 2003.

(2) Promote the excellence of the Human Anatomy course sequence by maintaining its current home in Zoology and by locating appropriate teaching space.

The current facility for the Human Anatomy laboratory is certainly inadequate, although it was been improved substantially two years ago during the remodel of Lind Lecture Hall. Unfortunately given the severe space constraints that exist in the College of Science an alternative location is currently unavailable.
The Dean certainly agrees with the review committee that creating a second, competing human anatomy laboratory in another college doesn’t seem to be justifiable given the significant expense involved. Duplicating efforts is not an appropriate way to spend limited institutional resources.

(3) Provide formal recognition that teaching research students is part of the faculty teaching workload.

The College of Science Chairs’ Council has already begun such a discussion as it applies to undergraduate research, and plans to revisit the issue in a more focused way during Fall Semester, 2008. The issue is becoming increasingly important to the entire college given (a) the rapid growth in undergraduate research, (b) the very conservative policy of providing 0.25 TCH per SCH, which is far too restrictive for the time-intensive mentoring required of undergraduate research, and (c) the importance of supporting active research programs for faculty interested in remaining current in their disciplines, which is a fundamental requirement of excellent teaching, especially in rapidly developing disciplines. The Dean anticipates that a formal policy regarding reassigned time for research and scholarship activities will emerge from this fall’s discussion.

(4) Provide adequate start-up funds for new faculty.

Some progress has been made in this area since the program review team completed their report. The Provost has been able to allocate $30,000 in annual ongoing funding to the College of Science in support of new faculty start-up packages (the funding must be distributed across all new life and physical science faculty in any given year). Although a significant improvement to previous funding for which the College is deeply appreciative, it is still far less than is typically provided at comparable institutions with active research programs. The Dean will attempt to supplement the pool of funds whenever possible through open position salary savings.

(5) Consider distribution of some portion of indirect costs generated by grants back to the department or faculty member to serve as incentive and institutional support.

At the present time, the F&A capture (facilities and administration, or “indirects”) that comes to the College of Science has been used collectively to support equipment purchases and remodeling needs. However, an “experiment” is underway with one faculty member in the Physics Department such that 15% of the F&A that the member’s grant writing generates is redistributed back to the department and 10% to the PI, with 25% remaining at the Dean’s level and 50% being held centrally. Given the very low negotiated F&A rate that currently exists at Weber State University of 34.8% of salaries and benefits only, the amount filtering down to the department and the PI is likely to be very small. For a $60,000 base salary and a grant that supports a 10th and 11th month summer salary, the 15%
returned to the department would amount to approximately $849 and the 10% to the PI would be $566.

It is critical that Weber State University move toward a higher negotiated F&A rate that also includes equipment costs. Not only will this result in additional needed revenue generated by grants that can then more fully support the administrative costs associated with the activity, but it will also help to support facilities remodeling and ongoing maintenance that are required for expensive and delicate scientific instrumentation. However, given the significant concerns expressed by some faculty regarding the redistribution of F&A costs, the College of Science Chairs’ Council is planning on developing a policy based on the current negotiated rate that will represent the consensus of the College on the issue. A draft of this policy should be ready for discussion in Fall 2008.

(6) Engage in heroic efforts to locate adequate teaching and at least some functional research space for faculty.

As the review team has pointed out, severe space limitations exist in the Department of Zoology (note also the recommendation and response above concerning the Human Anatomy laboratory). Unfortunately this is true throughout the College of Science, and is negatively impacting all departments. The Science Laboratory building is now nearly 40 years old (completed in 1969) and the adjacent Lind Lecture Hall is only one year younger. In addition, the design and current status of the Science Lab building is highly restrictive to collaborative projects and suffers from significant fire, earthquake, and asbestos issues. At this point there is no available space in the building for expansion of programs, or for necessary support of research by faculty and students. Efforts are continually underway to identify temporary and long-term solutions to the challenging space constraints that the College of Science currently operates under. For example, several relocations within the College are planned that will ultimately free up another small research space in the Chemistry Department. In addition, remodeling will be required to house the Chemistry Department’s new FT-NMR when it arrives later this summer or fall. This is being accomplished by having the current shop spaces move into an underground facility attached to the Science Lab building that previously held the campus chiller plant.

(7) Establish a Standing Committee for the Premedical Program to provide broader input and to serve as an advisory group for this endowed program.

As mentioned in the Zoology Department’s response, this issue has been discussed with the current director of the Dr. Ezekiel R. Dumke Family Pre-Medical Professional program. She believes that the current structure is serving our students well. Given the success in placement of students into medical programs, her assessment seems justified.
(8) Funds be identified for use of a standardized Senior Exit Examination in the area of major, to be given at least once every 3 – 5 years, minimally scheduled to coincide with year before External Program Review for each department.

This is an interesting suggestion that will be explored in the future. It is clearly important that all of the programs gather meaningful assessment data that allow us to analyze the success of our programs and make appropriate changes informed by those data.

(9) Suggestion (External Reviewers) The College and/or University should investigate the potential of providing short-term graduate certificate programs in Conservation and/or Wildlife Biology designed to address educational need of local employers and the regional community.

This is a very worthwhile suggestion and certainly one worth considering. Perhaps similar consideration may be given to other program areas within the College as well. It is critical that the College maintain relevant curricular offerings, degrees, and certificates, especially within the context of market demand for specific programs.

The Dean greatly appreciates the thoughtful self-study developed by the Department of Zoology, the numerous informed comments made by the program review team, and the reflective response by the Department. Many of the concerns and recommendations suggested by the review team are already being addressed, but the recommendations will also certainly be very helpful in strategically planning for the next five years of the program.