

External Program Review
of the

Computer Information
Sciences Program

at
Shepherd University

(December 2009)

External Program Review of the Computer Information Sciences Program at Shepherd University

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BACKGROUND

This report is based on a program review document prepared by the Department of Computer Science, Mathematics and Engineering (CME) that was provided to the reviewer prior to his site visit on December 9, 2009. The focus of this report is on the Computer Information Sciences (CIS) degree program and its four concentrations within the CME department.

While at Shepherd University campus, the reviewer met with the following individuals in the given order: Dr. Reza Mirdamadi, Department Chair; Dr. Osman Guzide, Assistant Professor of Computer and Information Sciences; Dr. Seung-yun Kim, Assistant Professor of Computer and Information Sciences; Dr. Weidong Liao, Assistant Professor of Computer and Information Sciences; Dr. Zhijun Wang, Assistant Professor of Computer and Information Sciences; Dr. Richard Helldobler, Vice President for Academic Affairs; Dr. Colleen Nolan, Dean School of Natural Sciences and Mathematics; and Dr. Virginia Hicks, Dean School of Education and Professional Studies. The site visit took place during the final examinations period and, hence, the reviewer was not able to meet with students enrolled in the CIS program.

OVERVIEW

The CIS program at Shepherd University has a cadre of dedicated faculty who are providing their students with a wide range of educational opportunities, excellent advice about their academic careers, and access to research experiences using directed research projects, participation at regional conferences, and the promotion of students' co-op experiences. To a large extent this has come about through the work of dedicated faculty and staff who create this environment through personal sacrifice and some compromise in what they feel should be offered due to high competition and limits in the resources available. Accommodating new or growing initiatives, such as meeting increased demands from the industry and amplified student research emphasis, will require that the faculty and administration work together to set priorities that reflect their collective vision for the Department and its future. Once priorities are set, it will be easier to identify how best to manage existing resources and to identify where new resources might be best utilized to help achieve that vision.

Strengths:

- The department offers a wide variety of educational opportunities through the four concentrations of study.

- The CIS faculty provide excellent guidance for their students.
- Faculty have done an outstanding job in inspiring young computer scientists.
- Faculty have excellent credentials and are active in research.
- Students have been successful in employment and graduate school admissions.
- Adequate computer equipment and financial support from the university.

Weaknesses:

- Adequate space for computer equipment.
- Faculty are stretched to the limit with their teaching load and other responsibilities.

Opportunities:

- The department should meet with the administration to set priorities and develop strategies for achieving goals.
- The CIS program is in a position to turn recent gains in preserves, concentrations, outreach, and facilities into a recruiting advantage.
- The CIS program should seriously explore the opportunity of establishing a graduate studies program. The existing tracks/concentrations coupled with credentials of faculty indicate the readiness of the CIS program to offer a masters degree.
- The CIS program should complete its internal review (which they partially did in 2006) to seek accreditation from ABET/CAC. Such accreditation could be a recruiting advantage to attract international students in particular.
- The CIS program should explore alternative instructional delivery including the development and delivery of web-based, web-enhanced, web-conferencing, and video conferencing courses.
- The CIS program should give more attention to student activities including the establishment of local chapters of national student organizations including ACM (Association for Computing Machinery), IEEE Computer Society, and the only national honor society in computer science (Upsilon Pi Epsilon).

Threats:

- CIS enrollments appear to be low, but not alarmingly so.
- Load issues could become a faculty morale issue.

CURRICULUM

Continuously evolving disciplines, such as computer science, require departments to consistently follow changes in the field and integrate these changes into their curriculum. It was evident, to this reviewer, that the curriculum of the Computer Information Sciences (CIS) program at Shepherd University has gone through several revisions and updates during the past five years and that the Program is a comprehensive program that prepares its graduates to apply their knowledge professionally or pursue graduate training.

The CIS program offers four concentrations: Computer Science (CS); Computer Programming and Information Systems (CPIS); Network and Data Communication (NDC); and Computer Graphics and Game Design (CGG). While the reviewer agrees with the administration that offering four concentrations seems to be spreading limited resources thin, the fact of the

matter is that these four concentrations were developed to survive in a highly competitive market on one hand and to meet the needs of the students on the other hand. After careful examination of the technical requirements of the four concentrations, it is evident to the reviewer that there are no redundancies between the concentrations. If the four concentrations were to be combined, the result would be a *traditional* computer science program that meets the curriculum guidelines for undergraduate degree programs as prescribed by the ACM/IEEE Task Force. The reviewer strongly believes that the existing four concentrations make the CIS program at Shepherd University unique and distinct. Therefore, it is the recommendation of the reviewer to allow the four concentrations to flourish till the next round of program review.

Strengths:

- The department offers an impressive variety of programs for students that certainly set Shepherd University apart from other institutions, especially in the local West Virginia market.
- The department has a clear sense of purpose.
- The department offers a very wide selection of courses from which students can choose. Moreover, all these courses are taught by full-time faculty.
- The department has been excellent stewards of the financial resources it has received.
- The department does indeed seem to be doing everything possible with the limited financial resources.
- Student lab fees have been held to normally expected increases.
- Online curriculum guides appear to be appropriate.

Weaknesses:

- The department may be offering too many CS courses (25 major courses and 3 non-major courses offered by 5 faculty). This may be one cause for faculty overload and low course enrollment.
- Enrollments are lower than desired.

Opportunities:

- The department needs to take the opportunity to showcase their uniqueness as a department with multiple tracks/concentrations to attract more students to the programs.

Threats:

- The department appears to be on the edge of exhausting opportunities to stretch limited financial resources.

FACULTY

The CIS faculty at Shepherd University provide students with excellent advice and offer the close personal relationships that typify excellent liberal arts experiences. The dedication and accessibility of the faculty to students and their commitment to their education were noticed by the reviewer during the site visit. This commitment is a hallmark of an excellent liberal arts

education. It is essential that as the CIS program evolves to meet new institutional requirements, such as increasing research productivity, that this aspect not be lost as its loss would likely diminish Shepherd's ability to attract new students.

It was evident, to this reviewer, that CIS faculty provide excellent guidance to their students and that they have done an outstanding job inspiring young computer scientists. A review of the typical class sizes reveals that one reason that faculty are able to provide the close personal supervision and guidance that students greatly appreciate is due to the generally low enrollment in several courses. These include introductory courses as well as upper level courses. In addition, involving students in directed research has positive impact on their development as scientists and their ability to expand their knowledge in a particular area.

Strengths:

- The department has a cadre of dedicated faculty who are providing their students with a wide range of educational opportunities.
- Strong faculty with terminal degrees, active research programs, and a sound record of publications, presentations, and external grants.
- Faculty have a variety of specializations.
- Faculty are committed to undergraduate teaching and to research with students.
- Faculty are available to and helpful to students in both formal and informal advising.
- Tenure and promotion issues appear to be very well handled.

Weaknesses:

- Some faculty periodically teach an overload.

Opportunities:

- The strength of the faculty and opportunities for student success offer a significant recruiting opportunity.
- Faculty are encouraged to apply for load reduction opportunities available through the proper Faculty Senate committees.
- Faculty are encouraged to develop professional activities that stem out of their classroom teaching.
- Faculty are encouraged to explore opportunities to offer online courses.

Threats:

- None noted.

FACILITIES

The CME department seems to have adequate facilities including offices, classrooms, and six computing laboratories. It was evident to the reviewer that computer equipment (hardware and software) available for teaching and for students' use is adequate. Moreover, based on the program review document, financial resources for adequate equipment maintenance and replacement appear to be available. However, space to house these computers and servers was a concern to the reviewer. The two teaching labs in Snyder Hall the reviewer visited during the site visit are overcrowded with desktop computers. The arrangement of the tables with the

computers and the large number of cables could become a safety issue. Moreover, the two labs are also home to the servers which are noisy and produce a great amount of heat especially in summer. This could be a health and safety issue and it is certainly counterproductive to student learning.

Strengths:

- The number and variety of computer hardware and software.
- Financial support from the Technology Oversight Committee (TOC).

Weaknesses:

- Computer teaching labs are overcrowded.
- Students' access to computing facilities is limited after the hours. A full-time faculty must be physically present in the building for students to have access to the facilities.

Opportunities:

- The department should use the money it will receive from the administration at the conclusion of this program review to beef up computer science and engineering collection at the University Library.
- The department should look into providing students with 24/7 access to computing facilities. This will be necessary to secure ABET accreditation.

Threats:

- None noted.

CONCLUSION

Computer Information Sciences is an essential program to Shepherd University. The program has continued to grow and develop since last program review.

There were several issues that came out of this review that should be addressed by a joint effort of the administration and the department. What this reviewer attempts to do here is to articulate and frame the issues with some minimal advice offered. However, to resolve these issues will require the concerned parties agreeing upon a vision for what type of institution Shepherd University hopes to develop into over the coming decade and what the department's role will be in that vision. This reviewer cannot decide between the various options, but can offer his collective perspective about what appear to be some of the options available to the concerned parties. These were highlighted in the strengths, weaknesses, threats, and opportunities sections in this report especially those in the "Overview" section on pages 2 and 3.

**EXTERNAL REVIEW OF
THE DEPARTMENT OF COMMUNICATION
AT
SHEPHERD UNIVERSITY
(2010)**

**SUBMITTED BY
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INTRODUCTION

This report is based on a program review document prepared by Kevin Williams that I received before my site visit; supporting materials that I received upon my arrival at Shepherd University on December 4th, 2009; on campus meetings with Dow Benedict, Dean of Arts and Humanities; Richard Helldobler, Vice-President of Academic Affairs; students in the Department of Communication; Kevin Williams, Chair of the Department of Communication; the full-time faculty in the Department of Communication; Dr. Virginia Hicks, Dean of the School of Education and Professional Studies. I later received a copy of the previous program review.

The Communication Department describes itself as a program that integrates professional knowledge and critical understanding, focusing on the principles and practices of new media production and media literacy. The Department currently consists of 4 full-time faculty and uses a significant number of part-time and adjunct faculty. The Department's contribution to general education consists primarily of offering multiple sections of Comm 202: Fundamentals of Speech. The program serves approximately 138 major students and offers minors that serves approximately 40 students.

RESPONSES TO THE 2004-2005 REVIEW

Since the 2004-2005 review the Department of Communication has implemented various measures in response to the recommendations of that review.

Positive Responses to Recommendations:

- ❖ Developed a new curriculum that works on balancing skills-based courses with more "liberal arts" based education.
- ❖ Conducted two successful searches for new faculty.
- ❖ Upped its faculty's involvement in full-time research and professional development.
- ❖ Added greater flexibility by creating distinct "tracks" in its new curriculum.
- ❖ Increased access to computers and media technology.
- ❖ Developed an approved assessment program.
- ❖ Added research and a senior capstone to its curriculum.

However, the Department has been unable to respond to all of the recommendations.

Incomplete Responses to Recommendations:

- ❖ The faculty teaching load remains high.
- ❖ The number of adjuncts has not been reduced.
- ❖ Tracking of students and employee satisfaction are still in the beginning phase.
- ❖ Absence of professional development activities with one faculty member persists.

- ❖ An advisory board has not been established.
- ❖ Full-time faculty still teach very few non “skills-based” classes.
- ❖ The attrition rate in the major persists.

All in all, the Department of Communication has made significant progress since its last review. However, the department suffers from having a small number of full-time faculty and inadequate space, which has precluded it from fulfilling some goals that it would like to implement.

CURRENT ANALYSIS OF THE PROGRAM

I. CURRICULUM

The department has extensively revised its curriculum, creating a major in Communication and New Media. The department’s self-review clearly documents the vision of this new program: a four-fold curriculum of survey classes, skill-based classes, philosophy and media literacy classes and experiential learning and capstone classes. This vision is centered in the concept of new media and what it means to be a technologically literate citizen in the 21st century. This is in line with the general development of forward-looking programs around the world. Here at Miami we are also developing a program in Comparative Media Studies that focuses on these same principles. In moving in this direction, the department is putting itself at the forefront of the evolving field of media studies and is adopting a curricular model that will serve its students well in the future. In this regard, I encourage the department to further its research into the iDMA Model and the Digital Technology and Culture program at Washington State University.

The current curriculum is strong as indicated by student comments:

- ❖ The major does an excellent job of teaching software.
- ❖ The blogging across the curriculum program is great.
- ❖ The major is flexible and diverse.
- ❖ This department creates a sense of community in the classes and in its outside work.

Students expressed some problems with the curriculum, most of which are addressed by the new curriculum.

- ❖ There are not enough classes to take.
- ❖ There need to be classes that take things to a deeper level.
- ❖ When asked what new classes there should be they answered: music production, TV studio producing, Directing, a second level of advertising, Documentary.

In addition to the new major, the department offers minors in Communication and New media, a minor in Business Communication, courses in the Women Studies program and a concentration in Sports Communication. Further, a central teaching commitment of

the program is to the general education curriculum through the Comm 202 course. It is these subsidiary areas which cause the program to be hard-pressed to accomplish its primary vision.

In looking at the course listings it stands out that 11 out of the approximately 33 courses that the department offers are not courses that serve the major. These are courses in speech communication and business communication which have very little to do with the vision of the department. Only one member of the department teaches in these areas. I concur with the previous reviewer that COMM 222: Voice and Diction should be dropped. In addition, the university should consider phasing out the speech com area altogether as its connection to the rest of the department is marginal. Another possibility would be moving these courses to another department such as BUAD, since the majority of these courses are more social science based and are part of the Business Communication minor. Finally, since many of these courses are not often taught, the department could consider creating a single course "Topics in Speech Communication" under which these courses could be rotated.

The Comm 202 course seems to be a burden on the department. A great deal of the department's resources, in the use of adjuncts and part-time faculty, is tied up with this course. In the fall semester, 22 sections of Comm 202 were offered as compared to 21 sections of all other courses in the department. Only 15 sections of courses in the major were offered. In discussions with Vice president Richard Helldobler, it was noted that the university is looking into the general education curriculum and is considering ways to reduce the weight of Comm 202 on the program. I encourage the university to deal with this problem, which is a very common one in universities around the country. One should also consider how the department is seen across the university when its visibility to the overall student body is through a speech communication course. Here, at Miami, we have the same problem. Possible solutions include dropping the course entirely, finding other courses that could be grouped with it in the area of general education that it covers, finding a way to deliver the course electronically to reduce the number of faculty teaching it. One method of solving this problem would be to develop a general education requirement based on researching, designing and analyzing forms of presentation, rather than a focus on practice of just oral communication. Courses such as ART 140: Visual Thinking Skills, GRDS 200: Graphic Design, LBSC 100-105: Info Literacy, PHL 100: Intro to Liberal Arts Study, and newly developed courses in BADM Communication, ENGL Rhetoric, and THEA Performance could serve as list of options along with COMM 202, resulting in cutting its sections offered down to at least 5.

The department's self-review effectively points out the consistent and growing demand for its programs. The previous review suggested that the department increase its number of majors. I disagree with this goal and instead suggest that the department work towards interdisciplinary cross-fertilization which would bring students with diverse majors into the program's courses. I note that Graphic Design, Photography, Music and Computer and Information Sciences all offer courses that overlap with or extend the Communication curriculum. For example Graphic Design and CIS both teach courses in Web design and multi-media, Photography teaches courses in video editing and time-based media. The Department of Communication should begin talks with these other departments in order to pursue potential cross-listing of courses, cross-disciplinary minors, etc. In this way the department can become essential to other programs and

increase its visibility and value across the university. Finally, it might be worth considering placing the department within the School of Art, as this seems to be where its closest ties are.

One other program that the department has obvious ties to is the Journalism program. The situation is similar to the one here at Miami: print journalism is in English and Visual Journalism is in Communication. This does not make administrative or curricular sense. Here at Miami, a new Journalism program was developed. It is based in the notion of convergence, that is, all students in journalism should know video, print and web journalism. The university will have to consider undertaking some creative thinking on this.

As to the minors created in the new Communication curriculum, the minor in digital filmmaking and in new media are heavily skills based and have an extensive number of hours. It appears that they could serve students who want to take the practical courses in Communication without having to take the media literacy courses. Only the Media Studies minor melds theory and practice. If the department goes toward a model of working with ART and other departments, it might not be necessary to have the skills-based minors. Students in the other programs could take these courses as part of their major. However, if these minors are retained, they should be reworked to include at least one more literacy-based course. The department should also consider lowering the number of hours for the minors to 18. The Media Studies minor should be retained but with fewer hours.

II. SPACE AND FACILITIES

The department has made valiant attempts to keep up with equipment and to manage the space allotted to them, but the situation is, in a word, dire. The current space is disorganized and not conducive to fostering a sense of identity for students and faculty. There are four main classroom spaces: rooms 208, G08, G07 and the radio station. These spaces are disconnected from each other. Room G08 is a computer lab, but it is cramped and has a lack of teaching space. The computers are too close to each other and preclude situating groups in adequate working space. Room G07 is primarily a TV studio and equipment storage space with little room for teaching. Faculty offices are disconnected and there is no central space for the department. On my visit I noted that every room used by the department is cluttered with stored equipment, wires, etc.

Students were very adamant about the problems of space in the program. They noted that the computer lab was hard to get time on, lacked teaching aides during lab times, and that there was a general shortage of computers. One student pointed around room 208 at all of the clutter and said that “there is a total lack of space.” They were positive about the faculty attempts to deal with the problems, but found the space issue to be the number one problem in the program.

Again, the department has made positive steps in procuring equipment. The basic level equipment is fulfilling its intended mission, but there is a lack of advanced level video production equipment. The television studio is a hodge-podge of equipment, much of which was never intended to be used in a studio. The configuration of the studio makes it impossible to produce a show in the manner that professionals do it (e.g., there is no

separation between the control room and the studio space, making it impossible for the director to call out cues to the cameras or switcher).

As one of the central departments on campus involved with new media technologies, the Department of Communication should be on the cutting edge of technology at the university. The university needs to recognize that the viability of the department rests on the continual updating of new media equipment and facilities. The opportunity exists now to create a central space in Knutti hall in the space evacuated by Art. This should not be a half-hearted effort, but an all-out development of a model working space for media production and analysis. In addition the existing rooms used by the department should be rethought and/or remodeled with an eye toward creating more cutting-edge “smart” classrooms.

The department needs to recognize that it can’t do everything: radio, web, video studio, video field, film, animation, gaming, advertising, sports, remote events, news, etc. This spreads the equipment too thin. I particularly warn against going into sports production, which is a high expense/low student use venture. What the department seems to do well is radio and sound production, Video field production and web multi-media development. Focusing in these areas would be doable from an equipment perspective. The department is currently planning on becoming involved in operating an Access Cable channel, which if done well could serve the campus and the outside community in a way that promotes the university and the work that it generates. Taking on such a task, will involve a commitment to quality and again, needs to be focused into areas that are doable from an equipment standpoint. It might be wise to forego trying to develop a new TV studio and instead focus on procuring higher quality field production units. The university needs to realize that competing in today’s world means going to High Definition Media. This will require a considerable initial investment, but is not outside the resources of the university. In this regard, the department should look into finding external funding for facilities development. One possibility mentioned was tying into State funding by becoming involved in a “Documenting West Virginia” program. I highly support this. Another approach that could be successful is developing a DC based learning unit that has students working at political media communication that ties into the needs of West Virginia.

For these efforts to pay off the university should consider hiring a Staff/faculty member who would teach some classes but who would primarily be involved as a producer for the cable channel, documentary unit, etc.

III. FACULTY

The staffing of the department has improved but is still inadequate considering the number of students served and the additional duties of the faculty such as advising and maintenance and operation of the labs and media equipment. Despite this workload, 3 of the full-time faculty have maintained or are developing a strong record of professional development. The previous reviewer suggested that the teaching load be reduced, but that load has actually increased. One faculty member, who has apparently been told several times to increase their professional activities has not responded and does not show any signs of improvement in this area.

The department relies upon the use of adjuncts for the teaching of nearly 50% of classes and only two of these teach classes in the major. Most of this is due to the need to teach multiple sections of the general education course Comm 202.

Positively, the department has maintained a high level of quality teaching as indicated by evaluations and by student comments made in the session that I attended.

Student Comments

- ❖ The faculty treat us as individuals and as co-equals.
- ❖ The faculty excel at teaching software and production practices.
- ❖ I like the way the department stresses learning by doing.
- ❖ I think the faculty are great at staying on the cutting edge of new software and techniques; they're always evolving.
- ❖ Communication Profs are the hardest workers on campus.

But students also complained of the high faculty/student ratio. They felt there were not enough classes and though faculty were putting out a great effort to connect, they simply don't have enough time to give. They unanimously suggested adding more faculty to the department.

The solution to these problems are tied in with curricular and other issues which I will address in later sections and in my conclusions.

IV. OUTCOMES ASSESSMENT

The department is making a serious effort to create effective outcome assessments. The self-review notes several assessment indicators:

- ❖ Course assessment in each of the major areas.
- ❖ Full assessment reports for each major area.
- ❖ Initiation of tracking graduates using social networking software.

The department has dealt with or initiated steps towards dealing with the last reviews criticisms of its assessment measures. The self-review lays out precise principles of assessment and provides qualitative and quantitative measures of outcomes. The department has actively used its assessment results to adjust its curriculum and to modify courses according to the findings of its assessment measures.

V. OTHER ISSUES

The previous review recommended that the department establish an Advisory Board composed of professionals with expertise in specific areas of the communications industry. I believe care must be taken with the establishment of such a board because a purely professional board might steer the department toward more skills-based training. It would be prudent to broaden the composition of the board to include members who are

primarily involved in media studies, non-profit professionals and independent artists. Whatever the composition of the board one of its main uses should be to gather information and contacts in regard to acquiring external support. The right group of advisees can be valuable in keeping the department abreast of possible funding sources, cooperative ventures with industry, and opportunities for acquiring used equipment.

The previous review also recommends seeking accreditation. However, the department's self-review is correct in noting that Journalism accreditation is the only valid one existing in the communication field. It would be fruitless for the department to seek such an accreditation as it is not a journalism program. I do not believe that seeking accreditation at this time is a worthwhile goal.

The issue of class sizes came up in the discussion with the Communication faculty. Class sizes currently are 25 students for lecture style courses and 15 students for production type courses. This is a good model and is employed by most media studies departments around the country. The only exception might be if a larger lecture class in media studies was developed to fulfill the general education requirement.

The attrition rate of majors in the program remains high. The department needs to conduct a study of this situation. The problem may be that students are faced with difficulties of getting into classes due to the inadequate staffing of the department. The new curriculum may address some of this issue, but new hires in the department would likely solve this problem.

Currently the Library has established a fund for enhancing students ability to conduct research. The amount of the grant would be \$5, 000. The department should apply for this funding and argue to broaden the definition of research to include the type of research that media studies students do in developing documentaries, news stories, etc. Another possible target for these funds would be equipment and software for student-created interactive tutorials that could be used in the department curriculum. Finally, another option would be to propose a student-created DVD that uses media to produce media studies criticism of various media forms.

VI. FACULTY HIRES

As noted the inadequate staffing of the department is a major problem. For the department to fulfill its mission it will have to hire new faculty. As noted, if the department reduces the burden of COMM 202, pursues interdisciplinary connections, drops or moves the speech communication courses, the conditions for new hires will be doable. Dropping the number of adjuncts will free up teaching money. The university should also consider joint hires with Graphic Design, Photography or Computer and Information Sciences.

VII. VISION OF THE PROGRAM

The vision of the program is well articulated in the self-review document. However there is the potential that the department is trying to do too much. As noted earlier, with a small

faculty and limited equipment and space the department needs to focus its energies in a few well chosen areas.

The key phrase in terms of vision is “We are educating people in communicology. We are not just educating people to be technologically proficient”. The department needs to keep this at the forefront, for the risk is always to bow to student demand for strictly skills-based education.

The principles laid out on pages 28 through 33 are “cutting edge” and should become a part of the department’s self-description to students and the university. One area that the department should continue to develop its connection to community (one of the university’s Core Values). Communication should develop projects that document the Shepherdstown area and provide services to the local community.

As the one clear department in the university that links new media technology with critical understanding, the Department of Communication should become central to the university. I have noted various strategies for achieving this above, including interdisciplinary connections, dealing with the speech communication issue, reconfiguring Journalism, stronger connection to the School of Art, etc.

One potential problem for the department involves a confusing nomenclature in its self-definition. The department is named “Communication,” the major is named “Communication and New Media,” the concentrations and minors do not contain the word “Communication.” The term “Communication” may be being used simply because of past usage. As noted above, traditional speech communication courses are not part of the major and have very little connection to the vision of the department. Whether or not this courses remain in the department there is no reason to retain the name “Communication.” The national trend is one in which Mass Communication and Media Studies are separating from Speech Communication and Communication Studies. I recommend following this trend and renaming the department in a way that clearly demarcates its focus. The dominant trend is towards departments called “Media Studies,” “New Media Studies,” and “Digital Media Studies.” Renaming the department would clarify its mission to outside stakeholders and internally would serve to move the department toward accomplishing its vision.

VII: GENERAL CONCLUSIONS

The Department of Communication performs effectively and is a viable program at Shepherd University. The program furthers the overall mission and core values of the university.

Strengths

- ❖ The faculty have an excellent reputation with their students and are noted for the quality of their teaching.
- ❖ The department developed a new curriculum that works at balancing skills-based courses with “liberal arts” based education.
- ❖ The department implemented an approved assessments program.
- ❖ There is a strong sense of community in the department among students and faculty.

- ❖ Three of the full-time faculty have maintained a strong record of professional development.
- ❖ Successful hires have led to strong new faculty whose interests contribute to the vision of the department.

Weaknesses

- ❖ Inadequate space and lack of equipment.
- ❖ Inadequate staffing: A high student/teacher ratio and heavy teaching loads.
- ❖ Absence of professional development activities by one faculty member.
- ❖ The attrition rate in the major persists.
- ❖ Speech communication courses have little connection to the vision of the department.
- ❖ The COMM 202 course is a burden on the department's time and resources.

IX. RECOMMENDATIONS

FACULTY

- ❖ The university should approve **two new hires** for the department. Joint hires with Graphic Design, Photography or Computer and Information Sciences should be considered.
- ❖ The university should consider **hiring a Staff/faculty** member who would teach some classes but who would primarily be involved as a producer for the cable channel, documentary unit, etc.
- ❖ The issue regarding the one faculty member who has not pursued professional development activities and shows no sign of doing so and who is also marginal to the main vision of the department should be dealt with by the university.
- ❖ **Teaching loads** in the department should be lessened. This will be dependent on pursuing new hires.

SPACE AND EQUIPMENT

- ❖ The **lack of space** in the department needs to be addressed immediately. Create a new central space in Knutti hall in the space evacuated by Art.
- ❖ Existing rooms used by the department should be rethought and/or remodeled with an eye toward creating more cutting-edge "smart" classrooms.
- ❖ Forego trying to develop a new TV studio and instead focus on procuring higher quality field production units.
- ❖ The university and department should develop a plan for moving to High Definition Media. In this regard, the department should look into finding external funding for facilities development.
- ❖ As a means of securing external support the department should research the possibility of developing a DC based learning unit that has students

working at political media communication that ties into the needs of West Virginia.

CURRICULUM

- ❖ Reduce the weight of **Comm 202** on the program. Develop a list of courses under a general education requirement based on researching, designing and analyzing forms of presentation, rather than a focus on just the practice of oral communication. The department should establish a goal of cutting COMM 202 sections offered down to at least 5.
- ❖ COMM 222 Voice and Diction should be dropped.
- ❖ The university should consider phasing out the **speech com area** altogether or move it to BUAD.
- ❖ The **Journalism** program should be rethought with a focus on “converged” journalism.
- ❖ The department should work towards **interdisciplinary**. Talks should begin with other relevant departments in order to pursue potential cross-listing of courses, cross-disciplinary minors, etc. It might be worth considering placing the department within the School of Art.
- ❖ The department should reexamine its **minors**. The number of hours for the minors should be lowered to 18.
- ❖ The department should work to fulfill its vision of a curriculum that integrates theory and research. In this regard, new courses should be developed in the media literacy area to balance out the curriculum. Further, skills-based courses can be infused with theoretical content. In further curriculum development, the department should consider adding a mid-level theory/literacy requirement.

OTHER ISSUES

- ❖ The department should establish an **Advisory Board** including members who are primarily involved in media studies, non-profits and independent artistic production.
- ❖ The department should not seek to increase its number of majors.
- ❖ The department needs to recognize that it can’t do everything. I particularly warn against going into sports production, which is a high expense/low student use venture.
- ❖ The department should not pursue **accreditation** at this time.
- ❖ The department should continue to develop projects that document the Shepherdstown area and provide services to the local community.
- ❖ The department should **change its name to “Media Studies,” “New Media Studies,” “Digital Media Studies”** or another term that clarifies its mission to outside stakeholders

**EXTERNAL REVIEW OF THE ACADEMIC
PROGRAM IN MATHEMATICS OF THE
DEPARTMENT OF COMPUTER SCIENCE,
MATHEMATICS, AND ENGINEERING AT
SHEPHERD UNIVERSITY, SHEPHERDSTOWN,
WEST VIRGINIA**

(2009)

**SUBMITTED BY
ANTHONY LO BELLO
DEPARTMENT OF MATHEMATICS
ALLEGHENY COLLEGE
MEADVILLE PA 16335
JANUARY 25, 2010**

Introductory Remarks

On September 29, 2009, Dr. Virginia Hicks, Dean of the School of Education and Professional Studies and Shepherd University Program Review Coordinator, wrote to invite me to serve as the external reviewer for the Mathematics program. I immediately accepted and thereupon received the departmental self-study report “Shepherd University, School of Natural Sciences and Mathematics, Computer Science, Mathematics and Engineering Department, Mathematics and Engineering Program Review (2005-2009)”, which I have read repeatedly and carefully. Dr. Hicks and Professor Reza Mirdamadi, Chairman of the Department, then sent me the agenda for my visit to the campus, which I had set for November 18, 2009. Professor Mirdamadi had to be out of the country on account of a family emergency during my stay on campus, so I was unable to meet with him, and all my contact with him has been by e-mails and telephone; he appointed Dr. Christopher Elmer, Visiting Assistant Professor of Mathematics, to be my host during my visit. Dr. Elmer, with the assistance of Dr. Kim Seung-Yun, Assistant Professor of Computer and Information Sciences, performed this function in the most gracious and attentive manner, and I thank them both for their friendly cooperation.

I began my visit by having breakfast with Dr. Elmer at the restaurant of the Bavarian Inn at 8 AM on Wednesday, November 18. I then proceeded to Room 204 of Stutzman-Slonaker Hall, where, from 9 to 11:30 AM, I conducted meetings with the following faculty: Christopher Elmer, Kim Seung-Yun, Nicholas Martin, Osman Guzide, and Wang Qing. From 11:30 AM to 1 PM, I had a working lunch with Doctors Christopher Elmer, Nicholas Martin, Wang Qing, and Amirhossein Amiraslani. From 1 to 2 PM I met with Dr. Richard Helldobler, Vice President of Academic Affairs, in his office. I then met with Dr. Colleen Nolan, Dean of the School of Natural

Sciences and Mathematics, in her office from 2 to 3 PM. From 3 to 3:30 PM I met with Dr. Virginia Hicks in her office. At the conclusion of these scheduled meetings, I went to the Library to introduce myself to John Sheridan, the Dean of Libraries. I then requested an impromptu meeting with Mathematics students, which Dr. Kim was able to arrange on short notice. I spent that evening and Thursday morning touring the campus and downtown Shepherdstown.

This was my third visit to Shepherd University, and my second stint as external reviewer. I had previously visited the school in October, 2003 and April, 2008 to lecture to the Mathematics students and faculty and to consult with the Department on preparing students for an actuarial career. In the spring of 2005, I was the external reviewer for Mathematics, and on May 23, 2005, I submitted my report to Dean Dow Benedict; no provision for a visit to the campus was made for that review process. I have reread my old report and see that the Department was indeed responsive to the recommendations which I made at that time.

I received the Ph. D. degree in Mathematics from Yale University in 1975 and am currently the senior member of the Mathematics Department at Allegheny College, Meadville PA 16335.

I see it to be my duty to offer the frank and true evaluation of an outside expert (if so I may refer to myself) on the state of the Mathematics program and on the quality of the staff and curriculum. I make it clear from the beginning that I write from the point of view of a fellow sympathetic to Shepherd University and its Department of Computer Science, Mathematics, and Engineering, and with genuine affection for the colleagues who teach there. Finally, I should point out here that some of the recommendations that I will make in what follows are not entirely within the power of the Department to

implement but require administrative action by the responsible University leadership.

Mathematics and Liberal Education: Some Philosophical Considerations

I begin with the fact that Shepherd identifies itself as a *liberal arts university*, which means that its mission is to graduate cultured men and women. The best acquisition of a cultured man or woman is a liberal frame of mind or way of thinking, but there must be added to that possession acquaintance with the prodigious store of discoveries and inventions, both literary and scientific, which humanity in its intermittent and irregular progress from barbarism to civilization has acquired and laid up. Mathematics has been acknowledged by everyone, always, and everywhere, to be an important part of a liberal education and is with good reason called the *Queen of the Sciences*, since all science, both natural and social, depends on it. A strong Mathematics Department is therefore essential for a strong Shepherd University. Mathematics is traditionally divided into several areas of specialization, some of the most important of which are real and complex analysis, algebra, geometry, number theory, probability and statistics, topology, logic, and applied mathematics; those mathematicians who are not “applied” are often called “pure” mathematicians. A department should aim to have as many of these subdivisions covered as possible, just as a Theater Department could not properly be composed entirely of specialists in the plays of Chekhov, or a Biology Department entirely of people who had written their doctoral dissertations on the phylum *platyhelmenthes*. The reason for this is obvious: it is to prevent at the departmental level the same sort of problem that would arise at the university level if whole branches of

learning were omitted, namely, the problem of presenting only a partial picture whether of the subject in question or of knowledge as a whole, and therefore of making no provision for the contribution and influence of the representatives of the omitted area or subject.

Computer Science, Mathematics, and Engineering

Computer Science and Engineering are not branches of Mathematics; they are three different though related subjects. In the case of Shepherd, this is acknowledged by the fact that a separate external reviewer has been appointed for the Computer Science branch of the Department; as for Engineering, it may be included under Mathematics or Physics for administrative purposes at schools, like Shepherd, that transfer students interested in such a subject to other universities after two or three years. These three subjects are not usually combined into one department except at very small schools, schools smaller than Shepherd.

Since my last external review, Computer Science has been joined to Mathematics and Engineering to form one department. This was not done at my recommendation, and I would have advised against it if I had been aware that it was being contemplated. The reason why I am concerned about this is given in the next section.

The Department

If I do not include adjunct instructors, the Department of Computer Science, Mathematics, and Engineering is currently composed of the following full-time faculty:

Computer Science

Guzide

Kim

Liao

Romano

Wang Zhijun

Mathematics

Amiraslani (Applied Mathematics)

Elmer (Applied Mathematics)

Martin (Pure Mathematics)

Wang Qing (Applied Mathematics)

Engineering

Mirdamadi

The Computer Science and Engineering faculty help to teach the Mathematics courses, which is all right; without their help, the program would collapse, as the number of mathematicians is not sufficient to teach all the mathematics courses offered.

It is immediately obvious that Applied Mathematics is the strength of the Department, and this impression is confirmed by the course offerings, concentrations, and mission statement. Indeed, this has been a conscious move; in the *Self Study* it is plainly stated, “The Department has chosen to focus on Applied Mathematics (page 10).” This type of Mathematics is no doubt that branch of the subject which will most appeal to the students whom Shepherd admits. The Applied Mathematics program at Shepherd is stronger than any that I have hitherto seen at any other college. The Department must build upon this strength without allowing any weakening of its commitment to Mathematics as a whole. I notice with concern that there is only one pure mathematician left, Dr. Martin. In 2005, however, there were three pure mathematicians, Dr. Martin and two others, Dr Suda Kunyosyng and Dr. Peter Morris, who have both since retired. The predominance of Applied Mathematics has resulted in a Mission Statement (the one on page 6 of the *Self-Study*) that emphasizes technical education and employment, a focus that is incorrect for a Mathematics Department at a liberal arts university. Undergraduate education at such a university should be general, not vocational. Students graduating with the widest background in Mathematics have the best foundation for solving problems that arise in later scientific work and are best capable of adapting to changes in later life. It is praiseworthy and a good sign that the Department wants to show that Mathematics is useful as well as beautiful, but it has gone a bit too far in this direction in my opinion. This situation is probably aggravated by the union of Computer Science, Mathematics, and Engineering in one department.

I therefore make the following recommendations for the sake of the quality and viability of the academic program in Mathematics:

Mathematics and Computer Science should be separated into two different departments, with Engineering going wherever it is more comfortable. Uniting the two departments in 2005 was a big mistake, as it has contributed to Mathematics being identified almost entirely with one of its branches, Applied Mathematics, the subdivision, it is true, that will be most attractive to Shepherd's students. If you decide not to accept my advice in this matter, I do not predict disaster; I just say that you will very soon end up with something that outside observers will recognize to be not a comprehensive Mathematics program, but an Applied Mathematics program. Nothing that I have said should be interpreted to mean that no one may teach in both departments.

Furthermore, future hiring in Mathematics should be of pure mathematicians, not of any more applied mathematicians. Of five tenured or tenure-track faculty in Mathematics and Engineering, two applied mathematicians are enough. If this advice is adopted, the change should be "grandfathered in" naturally and slowly, that is, it should not be used as a pretext to deny reappointment to applied mathematicians already in the Department. Such a move would create chaos and a reign of terror and would be a disaster. The change can be made over time as people retire or leave Shepherd of their own accord for employment elsewhere.

Do not imagine that such changes as I recommend will prevent Shepherd Mathematics majors from finding employment upon graduation. On the contrary, it is too narrow an education that will do this damage. We have no applied mathematicians at all at Allegheny College, yet all our majors either enter graduate school or enter the work-force upon graduation. We are at the opposite extreme from you; we have tried to hire an applied mathematician but have been unable to do so.

Numbers of Faculty and Students

Shepherd University, with over 4000 students, has a department with *four* Ph. D.'s in Mathematics, and the number of graduating Mathematics majors in the past five years is as follows:

2005 – 4

2006 – 2

2007 – 7

2008 – 2

2009 – 5

Of the five faculty members in Mathematics and Engineering, two are tenured, and three are untenured.

For purposes of comparison, let me note that I received my A. B. degree from Kenyon College, Gambier, Ohio, in 1969. At that time, Kenyon College had 750 students and a Mathematics Department of five men, all pure mathematicians. In my class alone there were at least six students who went on to earn the Ph. D. degree in Mathematics. At Allegheny College, where I now teach, we have 2100 students and a Mathematics Department of eight full-time tenured or tenure-track faculty, all pure mathematicians (although we would like to have *one* applied mathematician), and the average number of Mathematics graduates each year is fifteen. There are no engineering courses here at Allegheny. Those of our students who want to become engineers participate in a “3-2” program; that is, they major in Mathematics or Physics and then transfer to other approved schools (like the University of Pittsburgh) after three years for two additional years of specialized study, after which they receive two bachelors degrees, one from each institution.. Shepherd, with over

4000 students, may reasonably aspire to have fifteen Mathematics graduates per year and a department of eight tenured or tenure-track faculty. It alarms me that Shepherd has such a small number of mathematicians for such a large student body. It is amazing what this Department has been able to accomplish with such a small number of mathematicians and such a large number of students, many of whom are very poorly prepared indeed for college level work. (I understand, for example, that there is a 100% success rate of Mathematics Education majors who attempt the state examination.) If it were not for the help of the computer scientists, engineers, and adjuncts, the situation would be untenable. Furthermore, administrators should be alerted to the fact that there will never be hundreds of Mathematics majors at Shepherd or at any other place. The subject is just too hard for youngsters who come to college poorly prepared and with humble scientific ability. Nevertheless, the small number of students of advanced Mathematics, whether they major in the subject or not, are likely to be among the best graduates that Shepherd produces. I therefore recommend that the number of mathematicians at the University be increased during the period before the next program review so that the size of the Department may be commensurate with the importance of the subject and the demands made on it by student needs. (For example, many required courses cannot at present be taught often enough to meet demand so that people who major in Mathematics can graduate in a timely manner.)

Since Shepherd admits a large number of poorly prepared students (for so the *Self Study* claims on page 19), there is a need for an unusually large number of Mathematics classes at the lower or “remedial” level. Since at the same time Shepherd is graduating only a small number of Mathematics majors each year (in single digits), upper-level or advanced courses which are usual or even necessary

for a viable Mathematics major will regularly have low enrollments and therefore may not be offered frequently or at all. This is a serious problem. It is not an option not to have a Mathematics major at the University or to tell students to transfer elsewhere to complete the Mathematics major in a timely manner. There is no way to avoid the fact that if Shepherd wants to secure the future of the Mathematics program, it needs to accept the fact that low enrollments in upper-level Mathematics courses are the cost of doing business. It also needs to make an Admissions effort to admit a larger number of students with some ability and interest in the subject. A school with such a beautiful location, with such a dedicated faculty, and with such reasonable fees ought to be able to manage this. The solution, therefore, is not entirely in the hands of the Mathematics faculty. For the time being, the essential upper-level courses must be offered on a regular basis even with low enrollments. The Department can help out by removing unessential Mathematics courses from the curriculum.

Contact with Alumni

The Department would benefit from having more information about what happens to its alumni once they leave Shepherd. The third paragraph on page 17 of the *Self Study* says that very few graduates respond to the surveys of the Career Center and that the Department has not yet established a systematic approach to tracking its graduates. One way to arrange for this would be for some senior member who knows the largest number of alumni to write an annual departmental newsletter, which would then be sent out by U. S. mail to everyone on a mailing list of Shepherd Mathematics graduates. Alumni would be asked to share news about themselves, whatever they would like, for inclusion in the next Newsletter.

Information about what was happening in the Department would be of interest to its former majors. If continued over a large number of years, this cannot but help promote greater contact between the Department and its alumni. I therefore recommend that this be done.

Concentrations and Tracks

Four different concentrations or tracks for the Mathematics Major are listed on pages 20-25 of the *Self Study*. This number is greater than or equal to the number of graduating Mathematics majors in three of the past five years. The whole system of concentrations and tracks may be unique to Shepherd. Most schools, I believe, simply list in their catalogue *suggested* courses for each career goal that an undergraduate may aspire to. In any case, the Department should henceforth concentrate its energy not on increasing the number of such things, but on beefing up its core major. Perhaps it is attempting to do more than it possibly can do well. If multiplying the number of such concentrations and tracks is viewed as an admissions or enrollment tool, it may backfire if only a small fraction of the students in the concentration or track actually end up graduating. I therefore recommend that no more such concentrations or tracks be added. The issue may be reconsidered once the average number of graduating Mathematics majors rises to twenty or more.

I do not see how one can *reduce* the number of concentrations and tracks at this time. The traditional Mathematics concentration is essential for a liberal arts college, and two other concentrations play to the Department's strength, which is Applied Mathematics. I would therefore not touch them at this point.

The Mathematics Major

Let me begin by stating that I am not competent to say what is a good program in Engineering or in Industrial Mathematics, only what is a good program in Mathematics.

There should be just one Mathematics Major, not one for each concentration or track. The Mathematics Major should require the following courses. Those marked with + are not currently required. Any courses currently required that are not in the following list should no longer be required. The changes that I have made are for the purpose of replacing some unnecessary courses that reflect the current overwhelming emphasis on Applied Mathematics with courses that provide a wide, traditional background in the major areas of the subject. I am not sure what the current status of Mathematics 312, Introduction to Abstract Algebra, is. On page 21 of the *Self Study*, it is listed among the electives, whereas on page 28 it is listed as a required course. (It should be the latter.)

Mathematics 155 (Discrete Structures)

Mathematics 207 (Calculus I)

Mathematics 208 (Calculus II)

Mathematics 254 (Discrete Mathematics)

Mathematics 307 (Linear Algebra)

Mathematics 309 (Calculus III)

Mathematics 310 (Differential Equations)

Mathematics 312 (Introduction to Abstract Algebra) +

Mathematics 321 (Probability and Statistics)

Mathematics 409 (Introduction to Complex Variables) +
Mathematics 410 (Advanced Calculus) +
Mathematics 424 (Foundations of Geometry) +

These twelve required courses for the major have a total of 40 credit hours. Students should then be free to choose six other credit hours from a list of suitable program electives above the level of 300. The Mathematics Major would then consist of a total of 46 credit hours. (My school, Allegheny, requires 47.) You currently require many more credit hours.

Mathematics 100 (Freshman Seminar) and Mathematics 434 (Senior Capstone) should be abolished. From the course descriptions in the catalogue and *Self Study* (page 33), I conclude that the former has no scientific content, and the latter is more Physics than Mathematics.

If this proposal does not find favor, then at least consider that you may be requiring too many lower-level or intermediate-level applied type courses and too few upper-level pure Mathematics courses, and make whatever adjustments that you can live with to rectify the imbalance.

If the faculty are already teaching four courses per semester, requiring them also to direct individual research projects for seniors is unrealistic. Seniors would do well just to take an additional traditional upper-level course.

The Mathematics Minor

The requirements for a Mathematics Minor should be reduced and simplified as follows. The Mathematics Minor should consist of the following four required courses

Mathematics 207 (Calculus I)

Mathematics 208 (Calculus II)

Mathematics 307 (Linear Algebra)

Mathematics 309 (Calculus III)

plus any two additional Mathematics courses numbered above 309. It would thus consist of a minimum of 21 credit-hours, three or four fewer than at present.

Adjunct Faculty and Their Use

The faculty data sheets of four adjunct or part-time instructors were included in the *Self Study*: Karen Adams, Sasha Annan, Victor H. Hughes, and Patricia Irwin. Some full-time faculty expressed their concern in the strongest terms not only about the University's reliance upon adjuncts to carry out its mission, but also about the quality of their instruction. The current situation is plainly called a weakness by the Chairman in the *Self Study* (page 19). There is no doubt at all that the principle must be, that Mathematics courses should be taught by mathematicians, and what is right in theory should be put into practice. In any case, there is evidence of strong dissatisfaction in the Department with the current situation with regard to adjuncts. I hesitate to pronounce further on this issue since it was not arranged for me to meet with any of the adjuncts, one of

whom, I could not help but notice, regularly teaches an overload of seventeen credits per semester, which brings me to the next topic.

Teaching Overloads

It is edifying that members of the Department are willing to teach overloads on a regular basis. I counted some teachers with a load of 14-17 credit-hours per semester. No one, however, should be required to teach an overload, and in fact Shepherd should move towards considering three courses per semester as a full load. There is no limit to what exceptional instructors can do, but it is a mistake to operate on the assumption that everyone is exceptional.

Research

Because of the heavy teaching loads, which are standard at Shepherd, the school must be realistic about the additional demands it makes upon the faculty for production of research; otherwise you will encourage a large amount of publication difficult to evaluate. The best teacher I ever had scarcely wrote anything. *For future program reviews, the faculty should be required to submit off-prints or Xerox copies of all the research publications that they list.* It is impossible for me to evaluate the material as it is now presented, as mere long lists (some very long) of titles of papers published in journals, most of which I have never heard of. There is the obvious complication, that it is all very specialized in the areas of Computer Science, Engineering, and Applied Mathematics, so that even the titles of the articles are usually incomprehensible to a pure mathematician like myself. Nevertheless, with the papers themselves in my hand, I would be able to say something useful about each record.

Regional Visibility of the Department

From the discussions held during my visit, I could see that the Department is well represented at conferences involving Computer Science, Engineering, and Applied Mathematics. One way of promoting their “visibility” in the Mathematical community in general would be for them to send a delegation to the annual spring meeting of the Allegheny Mountain Section of the Mathematical Association of America. Offering to host a meeting some April would be especially welcome.

Student Concerns

The undergraduates with whom I met mentioned that there are many students who withdraw from their courses at the beginning of the semester because they find out that they are not qualified to be in them. In the *Self Study* it is stated that Shepherd requires “all students entering any major in the Natural Sciences and Mathematics to take an online placement test” (page 10), but later on it is stated that “Our Department does not administer placement exams to entering students,” so that, as a result, “many students have difficulty in the introductory math course they choose for themselves (page 19).” This is a serious matter. It is wrong for unprepared students to be left to their own devices to pick their first Mathematics course. Placement examinations must be instituted for admission to those courses (such as Pre-Calculus and Calculus I) where this problem exists. There are many helps available for a Mathematics Department that needs a placement examination. Here are the options:

Many placement methods were discussed at the Mathematics Association of America (MAA) minicourse in Portland, Oregon in the summer of 2009. Some schools had very involved procedures

that combined a placement test score, high school GPA's, SAT scores, and other factors. For a school that currently has no placement procedure I assume a simpler approach would be best. If the Department wishes to place students based solely on a placement test score, there are several options.

- * Write an in-house test
- * *Maplesoft* - MAA Placement Test Suite
- * *Accuplacer* by College Board
- * *Compass* by ACT
- * *Aleks Calculus Placement Examination*

Some of these products require the students to take the test in a specific computer lab. Others allow the students to take the test on line from their homes. It really depends on how the Department wants to administer the test. I do not know a lot about *Accuplacer*, *Compass*, and *Aleks* because we at Allegheny eliminated these early on as they did not fit our needs. While they were not right for Allegheny, these last three tests were used by other colleges represented at the MAA minicourse.

The Main Results of My Review

I have made many recommendations of greater or less importance throughout this report. By way of emphasis, I conclude

by stating once again the two main conclusions of my investigation, which dwarf all others in significance:

1. Mathematics should be a separate department.
2. Future hiring in the Department should be in the area of Pure Mathematics.

**External Review of the Department of Psychology
Shepherd University
January, 2010**

Dr. James F. Sanford
Associate Professor and Associate Chair for Undergraduate Studies
George Mason University

Introduction

This is a report of an external review of the Department of Psychology at Shepherd University. As part of the review I read the department's self-study (*Shepherd University Department of Psychology Baccalaureate Program Review, 2005-2009*), portions of the *Shepherd University Catalog 2009-2011*, and portions of the Shepherd University and Department of Psychology websites. I also completed a site visit on November 6, 2009, meeting individually with Dr. Richard Helldobler, Vice-president for Academic Affairs; Dr. Ann-Marie Legreid, Dean of the School of Business and Social Sciences; Dr. Virginia Hicks, Dean of Education and Professional Studies; Dr. John Sheridan, Dean of Library; Dr. Larry Daily, Chair, Department of Psychology; Department of Psychology faculty Dr. Heidi Dobish and Dr. Anne Murtagh; and four students majoring in psychology. I also talked by phone with Dr. Joseph Merz, Professor of Psychology, who was not on campus on November 6. All discussions were cordial, open and informative.

Because I also served as an external reviewer of the department in March of 2006, parts of this report will be comparative in nature, highlighting similarities and differences between my observations then and now.

Curriculum

Curriculum for the Major. The major curriculum includes eight required courses (Introduction to Psychology, Statistics, Research Methods, Life-span Development, Biopsychology, History and Systems, Directed Readings, and Senior Thesis) totaling 23 hours. In addition, majors must complete 9 hours from two groups of restricted electives and 6 hours of free electives for a total of 38 hours. The required courses, plus those that make up the restricted elective menus, ensure that students receive a broad background in psychology, appropriate for the discipline and in line with psychology programs nationwide. The internal review points out that the undergraduate curriculum is consistent with the recent Dunn et al. report that proposes five different domains for an undergraduate curriculum in psychology.

The Directed Readings and Senior Thesis courses are individualized for each student and involve students' designing and completing a final senior thesis. These courses are very valuable for students, especially those who plan on later graduate study, and they are very work-intensive for faculty. The department should be commended for including these

requirements. My discussion with students revealed that they would like to be able to use special participants (e.g., children, people with specific disabilities) rather than only students in the Psychology Department Research Participant Pool. While issues such as additional informed consent and access to these populations may preclude broadening the range of participants, the department may wish to consider trying to find ways of including participants from special populations for the students' capstone courses.

Curriculum for the Minor. While the major curriculum appears to be excellent and very appropriate for a psychology program, the curriculum for the minor appears to be too long and may focus too much on statistics and research methodology. A total of 25 hours is required, well beyond typical minors of 15-18 hours. One individual with whom I talked at Shepherd called it a "mini-major". Faculty should consider reducing the number of required hours. One method that the department may consider for partially accomplishing this would be to eliminate the statistics and research methods requirements. Nearly all college degree programs include research methods instruction appropriate to the individual discipline, and students minoring in psychology may benefit more from a broad introduction to the content of the field. In addition, dropping the statistics and research methods requirements may attract additional students to the minor. Of course, if the Psychology Department faculty decide that statistics and methods courses are necessary to fully appreciate the content of psychology, these requirements should be retained. Furthermore, statistics and research methods are currently prerequisites to all of the courses in Group I of restricted electives for the minor (Sensation and Perception, Memory and Cognition, and Psychology of Learning). Eliminating statistics and research methods as part of the minor requirements would require further modification of the curriculum.

Prerequisites. All content courses above the introductory level now require Introduction to Psychology, and many have additional prerequisites above the 100-level. The prerequisites all appear to be appropriate, although, as discussed above, the department may wish to revisit the inclusion of statistics and research methods as prerequisites for Sensation and Perception, Memory and Cognition, and Psychology of Learning. These three courses do not include labs in which students complete hands-on studies. Furthermore, statistics and empirical research are as fundamental to other areas of psychology as they are to these three.

Schedule of Classes. The schedule of classes for the last three years has demonstrated an appropriate sequence of offerings. With the exception of Biopsychology, all courses required of the major and minor have been offered at least four times during the six semesters in the 2006-07, 2007-08, and 2008-09 academic years, and most have been offered every semester. The lack of sections of Biopsychology is probably due to the fact that the department currently has no full-time faculty member trained in the biopsychology area. This deficiency should be resolved by the new faculty line allotted to the department that will be filled by a faculty member with biopsychology expertise.

Overall, the schedule of classes offered by the Psychology Department also shows appropriate scheduling of restricted electives and other courses. Among the restricted

electives, only Psychology of Learning has not been offered multiple times during the six semesters (it was cancelled on one occasion), and the offerings have included a range of free electives and special topics courses. Students did not voice any concerns about the psychology curriculum or schedule.

External to the Psychology Department, there appear to be problems encountered by psychology students in completing the foreign language and minor requirements. The small number of sections of introductory French and Spanish offered each fall often force students to wait until their junior year to begin their language sequence. Furthermore, both faculty and students reported instances in which graduation was delayed because a minor requirement or two could not be met. Requiring students to complete courses that are offered too infrequently to allow graduation in four years is something Shepherd should address as it reviews its overall curriculum and course requirements.

General Studies. I was very disappointed to discover that no psychology courses, even the introductory course, is included in the General Studies Program. The lack of inclusion was highlighted in both the internal and external reviews of the department in 2005-2006, and faculty and administrators I talked with in 2006 expected this deficiency to be remedied at that time. Psychology is a central discipline that connects with nearly all other disciplines, and enrollment in introductory psychology classes nationwide is second only to that in English composition. This centrality is recognized by other disciplines at Shepherd as demonstrated by the fact that, at the time the internal report was published, nine different psychology courses were required or allowed as electives by seven different disciplines. At the very least, Introduction to Psychology should be central to the General Studies Social Science menu, and other psychology courses with wide applicability to other disciplines (e.g., Social Psychology and Lifespan Developmental Psychology) should be considered for inclusion in General Studies.

Comparison to 2006. The department has made great strides in appropriately revising the curriculum since 2006. There are now appropriate prerequisites, and this enables the sequencing of courses to be much better. The number of hours required of majors has also been increased, and compares well to the national average. Unlike 2006, there is also now a statistics course taught within the psychology curriculum, and majors (and minors) receive statistical instruction appropriate to the discipline. The most glaring deficiency is not within the structure of the Psychology Department's curriculum and class scheduling. Rather, it is the failure to include any psychology courses in the Shepherd University General Studies Program.

Faculty

Teaching. One of the strengths of Shepherd's Department of Psychology is the teaching faculty. The internal review highlights this, and without exception class room teaching was identified as a strength by everyone I talked with, especially by full-time faculty. One student said that, unlike other programs, there are no "bad teachers" in the department. The faculty have also been trained in different sub-disciplines within the field and represent well the diverse nature of psychology. The one deficiency is the

failure to include on the staff a full-time faculty member who is sufficiently trained in biopsychology. This fact was alluded to above, and the new faculty line allotted to the department should rectify this deficiency.

Student learning assessment data also suggest that teaching is a strength of the department. Major Field Achievement Test results show that Shepherd psychology students scored above or near the national norm in all areas except sensory psychology and biopsychology. As discussed in the internal report, this is likely due to the previous curriculum that did not include Biopsychology as a requirement and the lack of a full-time faculty member to teach the course.

Research. Three of the four full-time faculty are actively engaged in research, and they include undergraduate students in their research activities. The thirteen professional presentations and one publication by Shepherd psychology students since 2006 attest to the work of faculty mentors. One weakness that was identified in the 2006 external report was the failure to have a “culture” that encourages students to work individually with faculty. This appears to have changed with the hiring and faculty development of research-oriented faculty both prior to and subsequent to 2005-2006. The students I talked with all expressed satisfaction with opportunities to work with faculty members.

Advising. Overall, advising seems to be a strength of the faculty, although the consistency of advising quality appears to be an issue. While students overall expressed satisfaction, one student said that she routinely went to a particular faculty member (“the superadvisor”) when scheduling classes and followed this by going to her assigned advisor for a signature on the advising form. There appears to be a gap between advisors in the degree to which specific scheduling advice is given that the department should address. Including a sheet outlining degree requirements, developing a sample schedule for psychology majors, and making tentative course schedules available at least a year ahead are all positive steps in standardizing the advising process.

One weakness of the advising system, and of record keeping in general, is the failure to have a centralized location and standard format for student files. At present, advisors maintain files of their own advisees, and the format, amount of information—and perhaps the security of the files themselves—may vary. A centralized, secure location should be established, and the content of each student’s file should be standardized.

Service. Three of the four full-time faculty are active in university service activities, including service on important university committees. Faculty are also active in the community, presenting informational talks at various community functions. This level of service is laudable for a department of only four faculty members. However, all faculty members should share in service responsibilities.

One additional focus of external service could be interaction with local school systems. Interaction may take the form of presentations of psychology content material to high school classes, providing information about the department and its offerings, and

updating high school psychology teachers regarding recent research findings in psychology.

Communication. Communication between faculty and students is generally good. The chair now routinely distributes information to students via an e-mail list. The reactivation of the Psychology Club has also served to provide a potential information conduit. The students with whom I met expressed satisfaction regarding intra-department communication. However, students were not as satisfied with communication with university administrative offices; one student said that she did not know she had won an award until she heard it at the award ceremony.

The department chair reported that he was trying to improve communication with alumni through development of a Facebook Group. This action should facilitate alumni relations.

Adjunct faculty. As the internal report suggests, the department relies too heavily on adjunct faculty, especially to teach required courses. Adjunct faculty often have outside schedules that preclude their offering courses at desired times, and they often are not as well prepared as full-time faculty. Additionally, adjuncts have no responsibilities other than teaching, and students usually do not have opportunities to work with them on research. The proposed department faculty hire and the plan to add new faculty lines university-wide will alleviate problems caused by the heavy use of adjuncts.

One action that Shepherd University overall should consider is requiring that all teaching faculty, including adjuncts, schedule specific office hours to meet with students in their classes. Without office hours, there is no specifically defined way in which students can interact face-to-face with adjunct faculty outside of class.

Comparison to 2006. Department faculty continue to be excellent classroom teachers. However, unlike four years ago, there appears to be a developing culture in which faculty and student research is valued. The addition of research space for faculty and small stipends for professional development have greatly enhanced the quantity and quality of faculty research.

Students

Quality. Incoming students appear to be well prepared for college. Mean high school GPAs, ACT scores, and SAT scores all suggest high-quality students among psychology majors. Furthermore, psychology students are consistently counted among Shepherd's McMurrin Scholars. This quality is also reflected by the number of student publications and conference presentations discussed above.

Student organizations. The reactivation of the Psychology Club, with elected officers and planned programming, was a very positive step in improving faculty-student communication and developing a student culture of professional psychology. The

students to whom I talked, including a Psychology Club officer, were excited about what the club could potentially achieve.

Unlike the Psychology Club, Psi Chi remains essentially inactive. The students with whom I talked who were members of Psi Chi indicated that they paid their dues and added membership in the honor society to their resumes. They had not met in a called meeting nor participated in any activities sponsored by the organization. If the department wants Psi Chi to be active, more directed advising may be necessary. Students are normally not eligible for discipline-based honor societies until well into their programs of study. This means that there is rapid turnover among active members and officers. Unless there are plans for activities and programs already in place, honor society members, who already may be juniors and seniors, may not see the value of undertaking the task of establishing them.

Facilities and Support

Offices and labs. Three of the four full-time faculty members who teach undergraduate courses have offices in the Shepherdstown Free School, while the other has office space well separated from the first three. The full-time graduate faculty member also has an office in a separate location. While the offices in the Free School are spacious and comfortable, the separation of faculty members' offices does not promote interaction and collegiality. In addition, assuming that a fifth faculty member is hired by next fall, either a fourth location will have to be found or renovation of the Free School to accommodate more offices will have to be undertaken.

Furthermore, the Free School has other disadvantages. First, it is isolated and potentially dangerous if occupied by only one person. That, and the fact that only three people use it regularly, means that it is locked more frequently than more populous buildings and less available to students and other potential visitors. In addition, mail is not delivered to the Free School, meaning that faculty mailboxes are not situated near their offices. A final problem is the lack of network resources. This is discussed in the *Information Technology* section below.

The Psychology Department now has two research labs dedicated to faculty. This is an excellent development. Assuming that a new faculty member is hired by next fall, two more labs should be allocated in order that all undergraduate faculty members active in research have dedicated space. The faculty members who will be using the respective labs should have primary oversight into the designs and equipment each will contain, contingent on cost and available space.

Teaching space. Faculty with whom I talked were divided about the quality of teaching classrooms in White Hall. One person commended the rooms, saying that the small size and close quarters promoted intimacy and student participation in class discussion. Another faculty member pointed out the short and wide shapes of the rooms made it difficult for faculty to maintain eye contact with students and students who were in the "wings" of each row to see material projected on the classroom screens. This faculty

member said that the rooms were oriented ninety degrees from the way they should be to promote best classroom learning.

Information Technology. Information technology and IT services also received mixed reviews from faculty. On the one hand, faculty were generally satisfied with the technology available in classrooms. Furthermore, all faculty have computers in their offices, and they are replaced on a four-year rotation. On the other hand, faculty offices in the Free School did not have access to network resources at the time of my visit, meaning that faculty do not have direct access to a shared network drive. This means that information regarding meeting scheduling and any other information that is shared university-wide on the drive is not available to department faculty from their offices. It is critical that all faculty members have full network connectivity and access to the full range of IT services available university-wide.

Finally, one faculty member said that only the base module of SPSS, and not the advanced module was available. The reason is apparently the higher cost of a site license for the advanced module. The base module is adequate for teaching undergraduate students in the statistics course, but it is not sufficient for some of the more advanced statistics used in research.

Professional development. Professional development money has been increased to \$625 per faculty member. This money is generally used for travel to professional conferences, but it can be used for other developmental activities such as tuition for Continuing Education Units. Additional funds are available on a competitive basis for travel to conferences at which the faculty member is presenting a paper, poster, workshop, etc. The increase in funds for professional development is a very positive step taken by Shepherd to improve the quality of university faculty. However, it is still inadequate to fund many development activities and should be increased when the budget allows for it.

One important source of professional development money comes from Friends of the Library. This organization has agreed to award \$5000 to each program after completion of its assessment, contingent on the funds being used for appropriate library training and/or use. My discussion with department faculty suggests that book holdings are generally adequate and that psychology students are competent in using library resources. The primary inadequacy appears to be in journal holdings, as Shepherd's on-line resources do not enable access to some of the primary journals used in some fields of psychology. Psychology faculty may wish to consider improving journal access with the Friends of the Library contribution.

Staff support. Like most programs at Shepherd, the Psychology Department lacks a full- or part-time staff support person. A support person is an important need for the department. As it stands now, somebody attempting to contact the department can do so only through a faculty member, often the chair. A staff support person could free up faculty time to allow a better focus on the activities (teaching, research, and service) that faculty are supposed to be doing. Both faculty and administrators with whom I talked

pointed out how busy everyone, especially the department chair, is. Part of this workload is due to job requirements that could more appropriately be handled by a staff person. This individual could maintain and update records, compile information for reports, and generally smooth the functioning of the department. One weakness of the advising system reported above is the nonstandard way that student advising records are kept. A centralized location and standard format overseen by a staff person would rectify this shortcoming.

With just four (soon to be five) faculty and about 160-170 majors, a staff person would not have to be dedicated full-time to the department, and s/he could support two or possibly more programs.

Summary

Overall, the Psychology Department is in very good shape, tremendously improved since my last visit four years ago. The major curriculum has been modified to reflect broad coverage of most of the major sub-disciplines of the field and appropriate course prerequisites have been added to enable more systematic course sequencing. Also, separate statistics (taught in the Psychology Department) and research methods courses have been established. The semester-by-semester schedule of classes shows that nearly all required courses and restricted electives are offered sufficiently, and free electives and special topics courses are offered on a regular basis. There appears to be a more research-oriented culture that supports student-faculty involvement in original research. Advising, if not student record keeping, is more standardized, and students appear to feel more connected to the department. Major steps have been taken in supporting faculty development.

Some areas which are still problematic but in which progress appears to be ongoing are addressing the failure to have a full-time faculty member teach the biopsychology course and the heavy reliance on adjunct faculty in the classroom.

What remains to be done, both within the Psychology Department and Shepherd more generally, are the following:

- Include, at a minimum, Introductory Psychology in the General Studies Program. As discussed above, this action is already four years overdue.
- Reduce requirements in the minor curriculum so that it better reflects a traditional minor.
- Fix the problems with information technology to ensure full and complete access to networks by all faculty members.
- Obtain sufficient lab space so that all faculty actively involved in research have dedicated space.

- Centralize and standardize student records and ensure they are in a secure location.
- Look into consolidating faculty offices so they are all in one location.
- Look into hiring, perhaps jointly with one or two other units, a staff support person.
- Address problems of access by students to courses meeting foreign language and minor requirements.

EXTERNAL REVIEW OF
REGENTS BACHELOR OF ARTS PROGRAM
AT
SHEPHERD UNIVERSITY
(2009)

SUBMITTED BY
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BACKGROUND

I was invited to serve as an external reviewer for the Regents Bachelor of Arts Program five-year review. As coordinator of the RBA Program at West Virginia University I understand the requirements, mission, and demands. Prior to my meeting I received the Shepherd University RBA Program Review for 2004-208. On December 7 I visited Shepherd University and first met with Nancy Gunther-Snyder, Coordinator of the RBA program and Irene Yurish, RBA Administrative Associate at a reception for students and faculty. I also met with Dr. Richard Helldobler, Vice President of Academic Affairs, Dr. Virginia Hicks, Dean, School of General Education and Professional Studies and various faculty throughout the day. The coordinator also provided a tour of the campus and the facilities available to RBA students.

PROGRAM OVERVIEW

The Regents Bachelor of Arts Degree program was approved by the Board of Regents (the then governing body for the state) in 1975 and designed to meet the needs of the adult learners who are interested in obtaining a bachelor's degree. Cyril O. Houle, in his book *The External Degree* (1973), states that, "The adult degree, in its purest form, was developed in the belief that adults, both psychologically and socially, are so distinctly different from young people that a program of studies designed for men and women should be based at every point on their maturity." The Regents Bachelor of Arts degree program is tailored to fit this description, and to fill the needs of a large number of West Virginians, who, for various reasons, have a desire to obtain a baccalaureate degree.

CURRICULUM

The curriculum for the RBA program is quite flexible allowing students to use a variety of credits to obtain their degree. Students must meet the university standards of 128 credit hours and at least a 2.0 GPA to graduate. However, within those hours students need only to meet the 36 hours of general education credits and 40 hours of upper division credits. The remaining credits can be either upper or lower division electives. Students may choose the courses that match their needs or use previously attained courses to meet these requirements. Students from previous majors may use these courses since they do not declare a major with more specific requirements.

The RBA program also has the ability to bring in military credits through military training and the American Council of Education. This is of particular importance when considering veterans and their educational needs.

Observations - Because the RBA program does not offer courses through their program, students take courses offered in other disciplines. This requires Shepherd University faculty to offer a variety of classes to accommodate the needs of the RBA students who are outside of their specific departments. It appears Shepherd provides enough on campus courses, which is evident by the number of RBA graduates. There are some online courses currently available to assist students needing a more flexible schedule.

FACULTY

The RBA program does not offer a major, or university classes, and therefore, does not have faculty attached to this unit. RBA students obtain their courses through other departments within and outside of the university.

Observations - Departments at Shepherd appear to be understanding of RBA students' needs and make accommodations for students outside of their major to attend classes. Shepherd University also offers RBA students the opportunity to obtain College Equivalent Credits through the RBA portfolio option.

College Equivalent Credits through Portfolios:

The RBA program is unique in the state by allowing students the ability to petition for college equivalent credits through work/life experience. Students prepare a portfolio of their experience relating it to the learning objectives of the courses. Faculty members from the departments then evaluate this information and determine whether credit should be awarded. These credits are not graded and are identified on the transcript as separate credit.

Observations: According to the RBA Program Five-Year Review, an average of thirteen RBA students per year submit portfolios for credits. These students received an average of twenty-one credits during this same time frame. It was noted that students at Shepherd submit only a resume indicating their qualifications from which the faculty ascertain the number of credits to be awarded. Other institutions within West Virginia request that student prepare documentation and narratives to address the learning objectives of the course(s) as they relate to their work experience. It may be useful to students to reflect on their work experience as it relates to the learning objectives of the courses and prepare a narrative indicating their understanding of these objectives. Evaluators may also appreciate this additional information for determining credit.

PROGRAM DEMAND

The West Virginia population with an undergraduate degree is approximately ten percent, far below the national average of 17 percent. How does the state address this issue and assist its population in obtaining additional education? The RBA program appears to be an excellent choice for students who have either never attended college, attended previously but did not complete their degrees, or who have attained an associates degree and wish to continue their education. Since 1975 the RBA program has graduated over 20,000 students throughout the state.

Observation: The RBA Five-Year Program Review has shown the number of both active and graduated students remained consistent throughout the program review time frame. This program graduated approximately 87 students per year, 16 per cent of the graduating class at Shepherd University. It is also has the fifth highest number of graduates of the ten state institutions. This demand will most probably increase with the new RBA Today initiative. This initiative will target adult learners in West Virginia who have not completed an undergraduate degree.

STUDENTS

The RBA program is designed for adult learners defined as anyone who has been out of high school for four years or more. For those students graduating with a GED, their admission eligibility is four year or more from the date of their graduating class. The program can accommodate adults with no college credit to almost completed bachelor's degrees.

Observations: From the RBA Program Review for 2004-2008, RBA students seem to demonstrate satisfaction with this program with at least an 80% satisfaction reported for the program, advising in the program and preparation for graduate school or employment.

Statistically this program appears to be serving the population for which it is intended. The mean age of the RBA student at Shepherd is 37.6 compared to the approximately 25 (although this number apparently counts RBA students as well). However, there is a significant age difference between these categories.

During my visit the RBA Coordinator held a reception giving me the opportunity to meet with students and faculty. Those students and faculty I met were genuinely interested in the program and appreciate the opportunity to have this program available. The coordinator is well respected and the students are truly appreciative of her advice and advising.

FACILITIES

Where a program is housed can be a major contributing factor to its success. Programs tend to grow when provided with adequate space and support. Observations:

Shepherd also supplied the RBA program with two offices and an open common space where student can gather or relax between classes. These facilities are spacious and beautifully remodeled providing students with a place in which to feel comfortable and to relax between classes. Shepherd is to be applauded for the support and facilities provided to this program. One of the felt needs expressed by students in general is a place to gather and feel part of the university and a cohesiveness with the program.

STAFFING

Sufficient staffing of the RBA office allows the program to expand by providing sufficient information through workshops, one-on-one assistance and advising. Adult students often have many questions and concerns not normally facing traditionally-age student. These include financial constraints, family support, time management, and the angst of returning to school. Advising needs to go beyond the selection of courses and future goals and can be quite time consuming.

Observations:

Shepherd University has one full-time RBA coordinator who admits, advises and provides information to students admitted to, or considering, the program. They also provide a part-time employee to assist with paper work and answering e-mail and telephone calls. With an average of 221 active students per year, it is important to have sufficient support for this large number of students. It is also important to note that students considering the program and requesting advise can be numerous and are not counted in the active or graduated numbers.

FINANCIAL SUPPORT

The RBA program requires some financial support from their home institution, usually in the form of facilities and personnel. RBA students provide tuition monies to the institution to help support their program and faculty teaching their courses.

Observations:

Shepherd University supports the RBA program by providing facilities and personnel as mention above. As noted in the RBA Program Review, portfolio

fees are used to support the program financially allowing the program to maintain the office. It does not provided sufficient funds to support or increase the staff assigned to this program.

SUMMARY

After reviewing the report and visiting the campus, I have found the Shepherd University Regents Bachelor of Arts program to both strong and viable. I compared the program not only to the programs within Shepherd but the RBA programs offered at the other ten state institutions. The RBA Program Review shows consistent enrollment and graduation numbers of which the university should be proud.

Strengths:

1. The RBA program at Shepherd University has excellent support from administration and faculty. They have a full-time coordinator and a part-time staff person to facilitate the program and offer students advising and assistance with planning their academic program. The RBA program also has excellent facilities, newly remodeled, with two offices and the use of a commons room. A survey of students at other institutions indicates one retention tool for higher education program is offering students a space in which they can relax and gather with fellow students. It is evident that Shepherd University administrators understand this student felt need.

2. The RBA program fulfills both the state's mandated requirements for the RBA program and the mission statement of Shepherd University. This program offers adult students in the state the opportunity to a quality education while encouraging adults to return to school and complete their bachelor's degree. The number of graduating student is strong in relation to the student body size and is the fifth largest in the state.

3. The statistics in the RBA Program Fifth Year Review indicate the program serves the population of adult learners for which it is intended. The mean age of students in this program throughout the five-year time period is approximately 36, ten years older than the mean for the overall student population. Therefore, adults are aware of this program and are having their needs met in order to obtain a bachelor's degree.

Weaknesses:

1. The RBA program at Shepherd University does not offer students areas of emphasis. Students often find a concentration of courses in their upper division courses gives them a focus in their program while offering them a

selling tool when job searching. Companies may not require a specific degree, but do look for a direction in the student's academic career.

2. Students have the opportunity to prepare a portfolio in order to petition for college equivalent credits through the RBA program. Shepherd University RBA students have this opportunity and according to the RBA 5-year report, credits have been awarded. However, preparation of the portfolio does not offer student the opportunity to relate their work/life experience to the learning objectives of the courses for which they are petitioning credit. I feel this would also be a helpful tool to faculty evaluating portfolios to better understand the student's background and understanding of these credits.

RECOMMENDATIONS

1. It is recommended the RBA program be continued at Shepherd University. It is evident this has been a consistently strong program through the five-year period, serves the population for which it is intended, and is well supported by administration and faculty.

2. Consideration should be made for the RBA Today statewide initiative to improve the educational opportunities for West Virginia's adults. By increasing the statewide efforts to encourage adults to consider a bachelor's degree, extra effort will be required in both recruiting and advertising. Additional students entering the program may present the possibility of additional staffing needs.

I recommend Shepherd University consider hiring a graduate assistant to assist in handling telephone and e-mail inquiries, applications and perhaps extending office hours. Since most adult students also are employed during the day, evening office hours one night a week can give students the flexibility of advising hours. Hiring a graduate assistant would give the program additional staffing, assist a graduate student in obtaining experience in working in an academic program, and allows the university to remain flexible with staffing needs.

3. The RBA Today initiative also recommends that colleges and universities offer students flexibility in time and space by offering additional online and accelerated (fast-track) courses. This will provide adult learners with opportunities to attend a university that might not otherwise be possible.

4. The Shepherd University RBA program may want to consider offering areas of emphasis, as do other institutions in the state. These agreements are approved by the departments and require the student to complete 15 hours of upper division course work in a specific department and provide students with an opportunity for structure within the flexible RBA requirements.