

**Program Review Panel Report
Andrews University
Graduate Council & Undergraduate Council
Graduate & Undergraduate Program Review and Development Committees**

Programs Reviewed: Master of Architecture, Bachelor of Science in Architecture, Bachelor of Science in Architectural Studies

Review Time: Summer 2010

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Criterion 1: History, Impact, and Demands for the Program:

1.1 Do the history and mission of the program define the contributions of the program to Andrews University?

The contributions are well defined on pages 1-3 of the report. There is a long list of services rendered to the community at large and to the University listed on page 19 that consolidates the mission of the program. We, the panel, were saddened to hear that a distinctive mission project with a fifteen-year history has been canceled this year due to the University' administrative decisions regarding Study Tours.

1.2 How do the program(s) contribute to the overall success of the University and the Seventh-day Adventist Church?

The program has a good level of productivity with a high enrollment of 144 students. In addition, it is "one of the top seven programs or departments in credits generated" (pg. 4) in the University. Furthermore, since there are at this time only "five Architecture programs in Christian Universities" in the nation, the program is valued for non-SDA students who want a different philosophy of aesthetics with a high concern for "the proper use of the land." Forty percent of architecture students are non-Adventist.

The School is financially self-sustained and has done many service projects for the worldwide SDA Church and University.

1.3 Is the employment demand for graduates from the program robust? Is enrollment related to anticipated demand for graduates?

Demand for graduates and employment ratio was good before the 2009 economic recession, though there are no instruments of assessment beyond "anecdotal evidence" (pg. 22).

1.4 Are the choices of benchmark institutions logical and helpful?

The report declared that it "has done little" or "has been little incentive to attempt to benchmark this program" (pg. 4). This is due to three main reasons; vast differences in the structure and delivery of architecture programs at different institutions (bachelors vs. 5 year masters vs. 6 year masters, etc.), a feeling that benchmarking was unnecessary because the programs were so successful in attracting students and an uncertainty in what the term "benchmarking" exactly means. In addition, the school of architecture is fairly unique since it is the only SDA institution offering Architecture in the NAD. Limited benchmarking has, in fact, been done using information provided by the NAAB accrediting body to address specific questions regarding faculty salaries and the studio space allotted to students.

1.5 Were other stakeholders consulted in the process of developing the self-study?

Not mentioned, however the School is fully accredited by the (NAAB).

Criterion 2: Program Quality

2.1 Program Inputs

2.1.1 Are the curricula current and appropriate for preparing graduates for their careers?

The curricula for all architecture programs is monitored by the NAAB. The Andrews University Division of Architecture received a full six-year term of accreditation from the NAAB in 2006. According to the NAAB report, the curricula "adheres to the University mission" and the "Urban Design Studio is a positive application of architectural principles that support and are strengthened by the University mission..." Comments from the pilot practicum program have been very positive towards the Architecture program and provide subjective evidence of the academic strengths of the school. The curriculum appears to be both contemporary and appropriate.

According to the self study report, the regular faculty come from diverse architectural backgrounds with all but one holding at least a master's degree. All appear to be well-qualified to teach the courses they are assigned, however the school reports that faculty salaries fall far below compensation levels for licensed architects; a goal for all faculty. The Dean of the School of Architecture represents the master's program to both its internal and external constituents. He is an articulate administrator however his highest earned degree is at the master's level. The school has an excellent support staff, which appears to meet the program's curricular needs.

One major limiting factor for the curriculum is space needs for the studio courses. Recent building additions only replaced existing space in other buildings. According to their self study report, the program provides 61 gross square feet of studio space per student when they should have 80-100 square feet per student.

2.1.2 Do trends in enrollment and productivity suggest continued viability of the program(s)?

Overall student interest in the architecture program has been strong. The self study reports that there has been a steady increase in enrollment over the past decade. Enrollment in 2004 averaged 106 which steadily increased to 162 in 2009. Enrollment dropped in 2010 to 141. This current drop in enrollment may be attributed to the current economic downturn which led to lack of personal funding for tuition and difficulty of finding employment at this time. This current downturn in enrollment is expected to turn around as the economy improves.

2.1.3 Are there sufficient resources of high enough quality to maintain program(s)?

Overall there appears to be sufficient and high quality resources to maintain the school's programs. The faculty appear to be well-qualified to teach in their respective areas. The self study reports that they have an excellent support staff. The Architecture Resource Center is well-supplied to support masters degree research at an advanced level and is used as the official repository of the publications of the Environmental Design Research Association in the area of environmental behavior and design. There appears to be adequate equipment and supplies. By philosophy, the school has intentionally limited their use of computer design programs, opting to emphasize hand drawings in the curriculum. The two limiting factors seem to center around faculty compensation and adequate space for current enrollment and future expansion.

2.1.4 Where resources could be strengthened and/or reallocated to strengthen each program?

In Section Two (pg. 10-11) the school addresses their need for additional studio space. With the economic downturn, space may be temporarily manageable, however this downturn is not expected to last more than a year or two. In the near future, growth in the School of Architecture may again be limited by issues surrounding studio space. The second issue is adequate compensation. As mentioned earlier, faculty salaries fall far behind salaries of licensed architects. Both of these issues should be addressed if Andrews wishes to continue offering a quality architecture program.

2.2 Program Outputs

2.2.1 Are the program outputs of high quality? In what ways is each program strong? Consider both student measures and faculty quality.

Student measures: Students were active in many civic and mission projects (pp. 1-3, 19, 39, 40) and have garnered praise and awards in New Urbanism (pp. 5, 6, 19, 21, 39, 40). This shows a very engaged student body committed to church and humanitarian goals (p. 19, 39, 40).

Employment rates, in non-recession times, are reported to be high (p. 21) and student satisfaction on the University-wide Senior Survey is similar to other university programs (although on these last two measures more specific data is needed).

The program keeps very precise retention data, which shows rates between 52% to 94%. However, more systematic interpretation of this data and explanation of response to this data is needed.

Faculty measures: Faculty succeed in expert teaching and service (p. 29) and the program has a national status in New Urbanism (p. 1-6, 19). Faculty attend at least one conference a year and do some consulting (p. 29). They have also developed “a wide variety of creative works” and are engaged in developing complex portfolios of work that “take longer to build” than most traditional academic work (p. 29). Most have terminal degrees of MArch, MFA or doctorates.

2.2.2 Evaluate the strengths of the processes of learner outcomes. Are multiple assessment measures used? Is assessment data used for program improvement?

Multiple factors are used to assess students. These include retention rates (p. 20), satisfaction survey (p.22) and anecdotal data (p. 22). These supplement “the strongest evidence” of all, the “accreditation display of student work” (p. 22). However, some of this data were not clearly defined and rigorous interpretation and use of these specifics was not explained. For example, if “display of student work” is the strongest evidence, how was this evidence archived, reviewed by faculty and used to guide program improvement? How are students learning from this form of evaluation? Furthermore, more explanation was needed on student portfolio and/or final studio/project work and presentations (p. 17, 27) and what faculty learn from this process. It was unclear if GPAs of architecture and non-architecture course work with other systematic collection of admission data, might be useful in preventing “the higher than usual attrition rate because of having more students on a probationary status” (p. 18).

2.2.3 Do the programs provide for holistic development of students and faculty?

The hands on, project oriented, spiritually infused, and mission driven programs seem to challenge students to develop intellectually, physically, socially and spiritually. The artistic emphasis (pp. 1, 24, 25) also brings together a deep respect for cultural well-being. The

program's belief, articulated very clearly, is that "architecture is by its nature social" (p. 22) and a civic art (p. 26) and is a vocation that brings human nature and the natural world together to make dwelling places. This report articulates a clear philosophy of calling and vocation (pp. 1, 23) and follows that with practical and engaged projects that bring holistic development as students are challenged to do their best with their heart and hands as well as their heads. We believe the architecture program is an exemplar of the holistic learning possible from an Adventist philosophy of education.

The library also demonstrated this wonderful holistic nature of the program, providing media, artifacts, and inspirational material, as well as traditional books and magazines. The atmosphere of the library was itself a motivation for holistic living.

2.2.4 Which program outputs are inadequate and which program objectives are not met? Does the program have weaknesses that could be resolved?

Student: Because of the "nature of the architecture profession" and the existence of a long and often loosely monitored three year internship, the program does not "track the success rate of our graduates on the [licensure] exam" (p. 21). We suggest that the school keep more specific data on employment, satisfaction and engage in systematic surveying of alumni and employers. This is a crucial need.

Faculty: Because of faculty focus on teaching and service, along with the difficulty of building complex portfolios, faculty "advance through the ranks...slower than allowed by policy" (p. 29) and a small percentage of faculty present regularly at conferences or have obtained full professor status. This works against advancement that could raise faculty salaries. A better internal culture for research productivity and more external education of the university as a whole as to "architectural scholarship" is needed.

2.2.5 What could be done to strengthen the program outputs: by the department, by the programs and by the University?

The School of Architecture needs to develop a systematic assessment program which annually monitors its student/program outputs. This would help the school document its strengths and target areas for improvement.

The department should create a systematic method for raising faculty rank as a way of raising salaries.

We believe the school should respond to the self-study's request for more space and consider both the size and aesthetic qualities of this space.

Criterion 3: Finances

3.1 How does this program contribute financially to the University?

Over the 10 years, to fiscal year 2009 [summarized in Table 1], the program has trended towards increases in operating income.¹ Operating income has been at 20% of revenues or greater each year between 2006 and 2009 [Figure 1]. For this same period the income to expense ratio has been between 1.5 and 1.7, indicating that for each dollar of expense incurred by the program, there is approximately \$1.60 of revenue [Figure 2]. Overall, in recent years the program has operated

¹ The self-study report uses the term "net revenues", which we in this document refer to as *operating income*.

profitably and made a contribution to the financial well-being of the University taken as a whole. The Urban Design Studio and the Architecture Mission Groups are self-sustaining or self-supporting under current conditions.

However, the nearly 19% decrease in credits in the Fall Semester 2009, suddenly and negatively impacted the financial performance of the Architecture program. The operating income was still positive for fiscal year 2010, at \$498,192, but decreased 48.7% from the operating income reported in FY 2009. Compared to the budget for 2010, the actual revenues were 20.0% below budget, and expenses were 7.0% over budget. Operating income was 51.3% of the budgeted operating income.

Table 1 - Summary of Revenues and Expenses 2001 to 2010

000s	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total Revenues	\$612	\$899	\$1,046	\$1,201	\$1,729	\$1,817	\$2,069	\$2,390	\$2,308	\$2,100
Total Expenses	<u>737</u>	<u>925</u>	<u>869</u>	<u>975</u>	<u>1,043</u>	<u>1,238</u>	<u>1,300</u>	<u>1,446</u>	<u>1,338</u>	<u>1,602</u>
Operating Income	<u>(\$125)</u>	<u>(\$26)</u>	<u>\$177</u>	<u>\$226</u>	<u>\$686</u>	<u>\$579</u>	<u>\$770</u>	<u>\$944</u>	<u>\$971</u>	<u>\$498</u>
OI %	-20%	-3%	17%	19%	40%	32%	37%	39%	42%	24%
Chg in OI		79%	776%	27%	204%	-16%	33%	23%	3%	-49%
Inc Exp Ratio	0.8	1.0	1.2	1.2	1.7	1.5	1.6	1.7	1.7	1.3

Figure 1 - Operating Income 2001 to 2010 (000s)

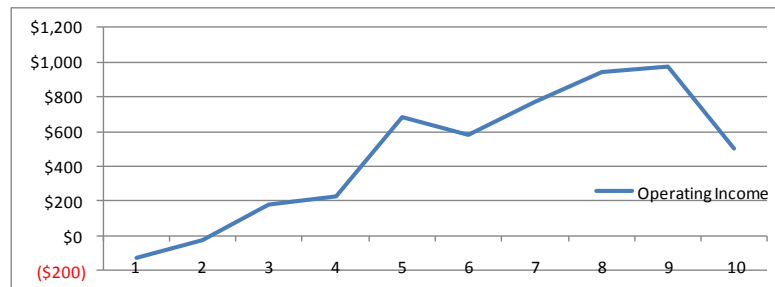
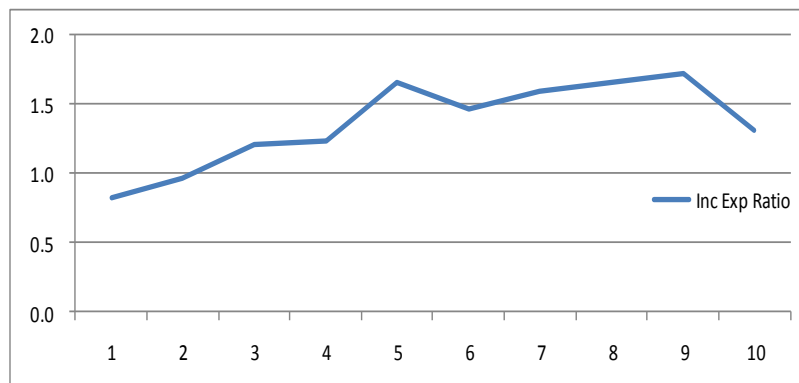


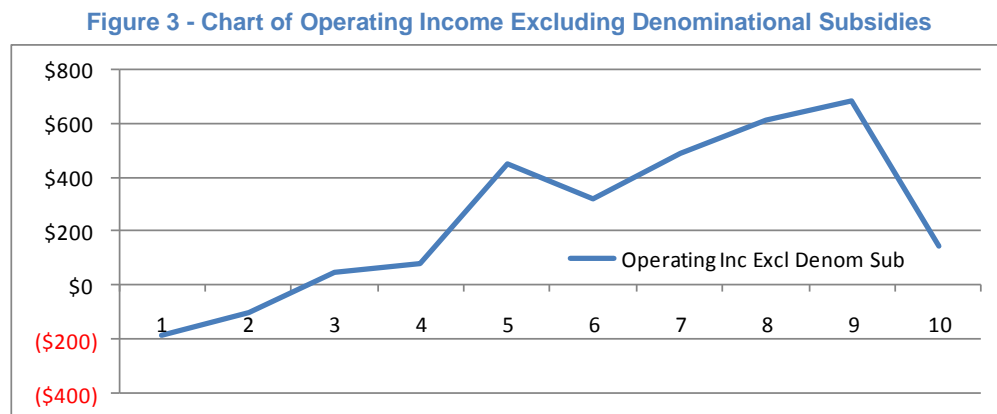
Figure 2 - Income to Expense Ratio



Does the program meet established targets for financial viability?

The self-study report states that the program meets the financial efficiency standards of the university (p. 35). But this financial efficiency has a cost. As noted in the report, class sizes are large and the program relies on underpaid faculty members carrying a particularly heavy workload and adjunct faculty to pick up the slack.

The program receives a subsidy that the university allocates from the denominational subsidy that comes to the university. If the program were to no longer receive the denominational subsidy, the program would continue to operate “profitably” *ceteris paribus* (eg. ignoring reductions in enrollment). [Figure 3]



At this point (mid-2010) the program operates in a fiscally sustainable manner. However, there is cause for concern, if [a] enrollment continues to decline and [b] the program is unable to cut costs quickly.

3.2 In what other ways does this program contribute to University well-being?

- Architectural services rendered to the university and to the SDA church and community as evidenced by the lists on page 19.
- Award winning designs of the Architecture faculty and students enhance the reputation of the university in the broader architecture community.
- As stated earlier, this program is only one of two architecture programs in the nation at a Protestant university, the program attracts not only SDA students, but also a large number of students from other faiths – exposing the SDA church and Andrews University, in particular, to a broader spectrum of the Christian community.

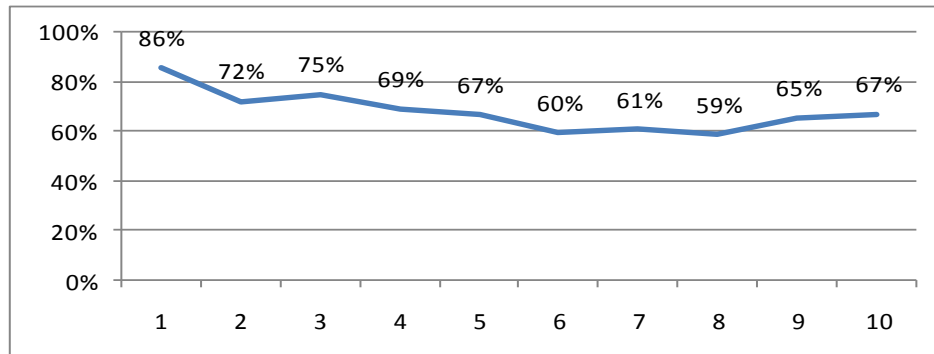
3.3 What would be the consequences (financial and other) to the University if the program was strengthened or discontinued?

STRENGTHENED:

- A major issue regarding the strengthening the program relates to faculty compensation. According to the self-study report, the faculty is the lowest paid in the nation. Given the status of the program and the awards received, clearly compensation does not directly correlate with program quality.

Currently salaries and benefits range between 60 to 70% of total expenses of the program [Figure 4]. Increasing compensation for the faculty would increase the overall costs of the program, though on a standalone basis, the salaries/benefits could be increased by roughly \$200,000 and the program would operate in the black (assuming no denominational subsidy and a return to enrollment between 140-150 students).

Figure 4 - Salaries & Benefits as a Percentage of Total Expenses



- b) Additional facilities could enhance the stature of the program and result in increased enrollment, making the program more viable and able to attract and retain qualified faculty.
- c) Additional faculty could be added to relieve the large studio class sizes and the reliance on contract faculty

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- a) Losing status and recognition the program brings to the university from its awards for architectural design and its contributions to the church and community.
- b) Impact on the larger external community of potential students who are not Seventh-day Adventists, but who desire to study at a Protestant University.
- c) Reduces need for capital investment in infrastructure and technology.

Criterion 4: Future Opportunities (SWOT Analysis – strengths weaknesses, opportunities, threats)

4.1 Are the strengths of the programs accurately described? Can they contribute to improvement of the programs and the University? Are there strengths that have been overlooked?

The strengths of the Architecture programs are described well in the self-study report. One strength is a strong focus on a well-articulated mission that is closely aligned with that of the University (p 1). This mission involves a holistic approach that fully integrates faith and learning. Service is also emphasized with both faculty and students engaging in a number of significant service projects (p19). The school of Architecture was even commended in their focus on their mission by their NAAB accreditors (p 5).

A second significant strength is the high degree of excellence achieved by the architecture programs. Designs originating in the Urban Design Studio have won prestigious national awards year after year. The Architecture faculty engage in both scholarly research projects (p 19) and in creative works that exemplify excellence in the discipline (p 39).

Finally, the architecture programs are very strong financially. The school of architecture generates 5.3 % of credits University-wide (p 4). With the exception of a recent dip, due mostly to the faltering economy, enrollment has grown steadily.

4.2 Are weaknesses accurately described? Can they be corrected to improve the programs? Are there weaknesses that have been overlooked?

One weakness, addressed in the self-study, is a lack of sufficient space for studio classes. Most architecture programs allot 80-100 ft² per student whereas the AU programs only have space resources for 61 ft² per student, on average (p 11). The lack of space is likely detrimental to the student experience.

A second weakness of the Architecture programs is a lack of structured assessment. Most of the evidence that the School of Architecture uses to determine the success of its programs comes from anecdotal accounts from students, alumni, and employers of alumni. The Dean of Architecture is aware of this situation and has already met with the AU Director of Assessment to start formulating an alumni survey and other assessment measures. The Dean and Architecture faculty are to be commended for taking these steps and the panel believes that its concerns regarding the lack of assessment will soon be addressed.

4.3 Are opportunities and external threats to the programs well described and ways identified to address them?

Once the current economic downturn is over, enrollment in the architecture programs will likely continue to grow. This growth will be limited primarily by studio space restrictions that already pose a problem even with current enrollment numbers. If more space were to be made available to the school of architecture, it would be able to take advantage of the opportunities presented by increasing student interest.

The architecture self-study also outlined opportunities for enriching its current programs through collaborations with other programs such as engineering (p 41) and developing concentrations in areas such as Urban Studies and Architectural Missions (p 12). Possibilities for collaborations and program enhancements are currently being evaluated by the School of Architecture.

One of the biggest threats to the architecture programs, identified by the self-study, is the problem of faculty recruitment and retention. The School of Architecture has historically had difficulty with recruiting faculty. According to benchmarking conducted by the school, its faculty are currently the lowest paid in the nation (p 35, 36). This problem is compounded by the fact that the Masters in Architecture is the terminal degree in architecture so the majority of the faculty cannot advance from the Masters to the Ph.D. payscale by pursuing another degree within their discipline. Faculty members also report difficulty in having their creative works deemed sufficient for advancement (p 29).

4.4 Are graduates well-prepared for their careers?

Evidence for the preparedness of graduates from the architecture programs was mostly in the form of positive comments from employers (p 5) and the ease with which graduates typically find employment (p 21). The school is currently taking steps to collect more evidence regarding student outcomes in the future.

4.5 Do students demonstrate Christian growth and commitment to the SDA Church?

The School of Architecture is very intentional about including course elements, activities and events in its programs that will encourage its students to incorporate their faith in all that they do. These activities include service projects for churches, mission trips, projects that enhance ties with the local community, etc (p 19, 20, 22, 39). Evidence for the effectiveness of these efforts comes mostly in the form of anecdotes collected from students (p 22).

4.6 What changes need to be made for success of the programs in the future?

- a) Space. Enrollment growth may have to be capped in the near future due to lack of studio space. An increase in space is necessary to ensure continued growth and the quality of the current programs.
- b) Program Assessment. There are many wonderful things happening in the School of Architecture but more assessment needs to be done so that the school has evidence of the great outcomes that are likely taking place. The school has already taken the first steps in putting together a plan for systematic assessment. This plan, once implemented, should help Architecture to better tell its story and will likely assist them in their next accreditation cycle.
- c) Faculty Salaries. As stated earlier, recruitment and retention of quality faculty is hampered by salaries that are low compared with those in the profession and faculty at other schools. One remedy may be to make licensure equivalent to a Ph.D. when determining payscale. Since licensure represents the highest level of achievement and expertise in the field of architecture it could be viewed as the terminal professional degree. Becoming a licensed architect involves three years of internship prior to taking a series of 9 exams within a 5-year period. In addition, the School of Architecture could work with the University administration to develop a White Paper or clear policy that delineates the activities that constitute scholarly achievement in architecture that should be considered for promotion and tenure. Finally, the University administration should take a close look at the financial productivity of the School of Architecture to see if salary augmentation is feasible.
- d) The CERENID Bolivia mission project has been a vital component in achieving the mission objectives of the architecture programs and in fulfilling the service goals that the school has for its students for the past 15 years. This essential program should be reinstated in future summers. In addition, the University administration should design a systematic set of criteria for determining which tours and trips receive funding and give priority to those that are vital components of their hosting programs and/or have a strong mission or service emphasis.