Architechural Technology

APRC 2005-2006

section 1 of 3

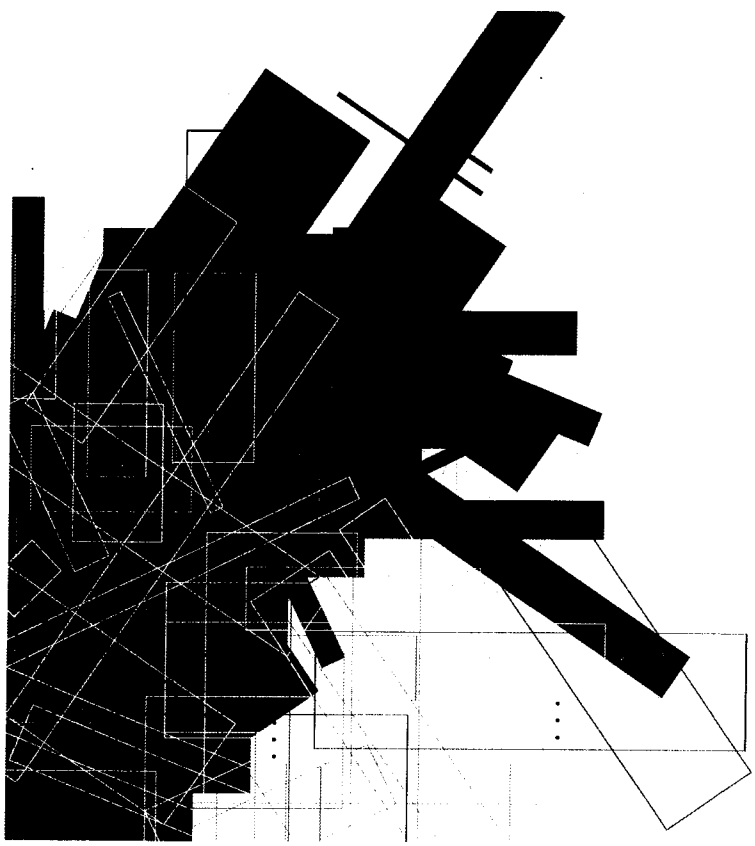
Ferris State University

College of Technology
Architectural Technology & Facility Management Department

Academic Program Review Report

Architectural Technology
Associate in Applied Science

September 2005



APRC Questions for AT PRP

I. Program Overview

1. Discuss in more detail the uniqueness of the AT program compared to its counterparts at other Michigan institutions.
2. Discuss how the proposed four-year architecture degree would differ from a BS in Architecture or a Bachelor of Architecture degree.
3. What would be the effect on the Facility Management BS program of adding a four-year architecture degree to the curriculum?

II. Collection of Perceptions

1. Please supply the perceptions of the AT faculty.
2. Are AT faculty satisfied with the level of computer skills possessed by entering students?
3. Has the program considered how to raise the level of graduate communications skills?
4. Comment on the student comments that suggest the presence of tension among the faculty that negatively affects the learning environment.

III. Program Profile

1. What strategies has the program considered to address the attrition rate in the AT program?
2. When students attrit from the AT program, where do they go?
3. Please supply the administrative program review document for the AT program.
4. How might the AT program attract more minorities and women?
5. What is the Fall '05 enrollment for AT?
6. Why did the two-year graduation rate for AT go from 71% to 100% in a two-year period?
7. Please supply some sample syllabi.

IV. Facilities and Equipment

1. Discuss in more detail the facilities evaluation for AT.

V. Conclusions

1. What interest in terms of student and the labor market have led the program to conclude that there is demand for a four-year architecture degree?

APRC Questions Response.
Mary Brayton

I. Program Review.

I.1. Discuss in more detail the uniqueness of the AT program compared to its counterparts at other MI institutions.

Students have four options for a BS degree available to them should they decide to continue their education at Ferris.

I.3 What would be the effect on the Facility Management BS program of adding a four-year architecture degree to the curriculum?

I would like to think that by adding a four-year architecture degree we would attract more students to our program. We are bound to have students who decide that they may not desire to practice architecture after all but that FM would be a better fit and thus they make a lateral move into the FM program.

II. Collection of Perceptions.

II.2 Are AT faculty satisfied with the level of computer skills possessed by entering students?

I am happy with the student's level of computer skills. I have found that I only need to show them a couple of the basic tools in general computer programs such as PowerPoint or Excel and they can take off running from there with satisfactory results.

In the use of AutoCAD, I am very happy. It seems that each fall a greater majority of the incoming students have competent or better skills. Those that have not had AutoCAD seem to be grasping it faster than students from previous years.

II.3. Has the program considered how to raise the level of graduate communication skills?

In most of my classes the students are expected to do a visual and verbal presentation of their work or do a research paper and group presentation.

II.4. Comment on the student comments that suggest the presence of tension among the faculty that negatively affects the learning environment.

The tension has been in existence since I started teaching 9 years ago. I Primarily teach freshman who have not yet been exposed to the tension. At least I am not hearing about it from the students in my classes. What they do complain about is their frustration with the disorganization and miscommunication of another faculty member in our program.

III. Program Profile.

III.2. When students attrit from the AT Program, where do they go?

The reasons I am seeing from the students who do not continue their schooling is because:

- They run out of money and need to go work.
- They decide they have no interest in architecture and so they switch either schools or programs.
- They have failed their courses and are denied for a year and just don't return or return later.

III.4. How might the AT program attract more minorities and women?

I am currently a faculty advisor for WIT (Women in Technology) and one of our goals is to visit area high school to talk about the career options available to women in non-traditional fields. We did a visit to Morley-Stanwood last semester. Our first attempt was to ask the school to hold a special session of just female students. When we were informed that no one had signed up to attend the session we then rescheduled to address a drafting class that included both male and female students (Juniors and Seniors). This went well and we hope to do more of the same this year.

APRC Questions for AT PRP

APRC Questions Response.
Diane Nagelkirk

I. Program Overview

1. Discuss in more detail the uniqueness of the AT program compared to its counterparts at other Michigan institutions.
   - Program faculty are all licensed architects and have considerable experience in architectural practice. This is not the case in community colleges; in fact the percentage of community college faculty who are licensed, experienced architects is very low.
   - The program's focus on the "practice" of architecture is very distinct; studio classes mirror the architectural office environment and experienced architects bring real-life learning into the classroom.
   - Program is recognized by professional architects as producing highly sought after graduates with valued technical skills.
   - Curriculum is very comprehensive; no community college matches this across-the-board learning of architecture.

2. Discuss how the proposed four-year architecture degree would differ from a BS in Architecture or a Bachelor of Architecture degree.
   - The development of the proposed degree is only in the early stages and does not merit discussion of what type of degree or emphasis of degree. Most likely it will be a B.S. centered in sustainable building planning and practice.
   - Bachelor of Architecture degrees are no longer accredited by NAAB (National Architecture Accrediting Board).
3. What would be the effect on the Facility Management BS program of adding a four-year architecture degree to the curriculum?
   - I believe an additional BS program laddering from the AAS AT program would enhance the well-respected reputation of the FM program. Recognition of an innovative program that responds to emerging sustainability issues in our built environment would bring added awareness to an already distinctive FM program at Ferris. In addition, the proposed program would share coursework with existing FM courses thereby giving all students a richer learning experience and understanding of our built environment.
   - Through meaningful marketing and recruitment I have seen a tremendous increase in interest and demand for the FM program. I am very encouraged that this program will continue to draw transfer students from throughout the US and Canada.
   - AT and FM SCH and FTEF productivity numbers have increased significantly in the past 2 years as demonstrated by the following:
     i. A significant increase in on-campus FM enrollment for fall of 2005 at 96% of third-year capacity supports this projection.
     ii. Impressive enrollment in the new Online FM Certificate program for fall of 2005 and continued interest from prospective students worldwide also supports this projection.
     iii. Recent interest and enrollment in the FM Minor degrees has increased SCH productivity.
     iv. A healthy Architectural Technology 2005 fall enrollment at 91% of first-year capacity supports this projection.

APRC Questions for AT PRP

II. Collection of Perceptions

1. Please supply the perceptions of the AT faculty.
2. Are AT faculty satisfied with the level of computer skills possessed by entering students?
   - In terms of keyboarding skills and Microsoft Office skills students are properly prepared.
   - Students who enter the program with no or little CAD experience tend to perform better. We find that what students learn in high school or at a technical center is not taught from an architect's perspective.
3. Has the program considered how to raise the level of graduate communications skills?
   - Architecture students tend to be visual learners and communicators; however faculty within the program engage students through writing, oral presentations and discussion groups in their courses.
4. Comment on the student comments that suggest the presence of tension among the faculty that negatively affects the learning environment.
   - Faculty should be encouraged by peers and administrators to act professionally and respectful of each other at all times. Tension and distrust among the faculty and its impact on student learning is unacceptable and should not be tolerated.

III. Program Profile

1. What strategies has the program considered to address the attrition rate in the AT program?
   - Enhance ongoing development and implementation of AT Recruitment and Retention plan with professional assistance from University Marketing.
   - Developed an annual student trip to architectural firms in the Grand Rapids area. Students meet and experience first-hand the success of our graduates.
   - Implementation of an architecture lecture series with assistance from Program Marketing Initiative.
   - Student desire to acquire degrees beyond associate level limits ability to attract and retain students pursuing careers in architecture or the built environment. Implementation of a B.S. in an architectural-related degree would result in increased enrollment and retention.

2. When students attrit from the AT program, where do they go?
   - Fall 2000: 48 students began the program. 4 students were academically dismissed, 9 students did not return, 3 students withdrew, 4 students changed curriculum to: RUBT, CDTD, A&S, BUS
   - Fall 2001: 40 students began the program. 3 students were academically dismissed, 4 students did not return,1 student withdrew, 10 students changed curriculum to: (3) A&S, RUBT, AH, (2) CONM, CDTD, BUS
   - Fall 2002: 41 students began the program. 4 students were academically dismissed,11 students did not return, 0 students withdrew, 10 students changed curriculum to: (2) A&S, CETM, EDU, (2) CONM, PLTE, (2) BUS, UC
   - Fall 2003: 53 students began the program. 6 students were academically dismissed, 13 students did not return, 0 students withdrew,13 students changed curriculum: (2) A&S, (2) CETM, TV PROD, (5) CONM, (3) BUS

APRC Questions for AT PRP

- Fall 2004: 45 students began the program. 12 students were academically dismissed, 7 students did not return, 0 students withdrew, 3 students changed curriculum: CJ, PreFM, Directed studies

3. Please supply the administrative program review document for the AT program.
4. How might the AT program attract more minorities and women?
5. What is the Fall '05 enrollment for AT?
   - Program capacity = 64
   - Quottec screen = 90
   - Enrolled = 60 (94% of program capacity)
6. Why did the two-year graduation rate for AT go from 71% to 100% in a two-year period?
7. Please supply some sample syllabi.

IV. Facilities and Equipment

1. Discuss in more detail the facilities evaluation for AT.

V. Conclusions

1. What interest in terms of student and the labor market have led the program to conclude that there is demand for a four-year architecture degree?
   - During the winter semesters of 2003, 2004, and 2005 current AT/FM students and AT alumni from the past 15 years were surveyed to validate the need for an advanced degree built on the existing AAS degree through the following three methods: Student Focus discussion groups, AT/FM Student survey and AT/FM Alumni survey. Compiled reports for each are available for review and the overall results indicate an extremely high interest in an advanced architectural-related degree at FSU. In addition, recruitment visits with high school students during the winter semester of 2003 and 2004 also demonstrated a strong interest in the potential of an advanced degree at FSU. Additionally, on-going surveys conducted by the AT faculty have repeatedly documented this need.
   - Buildings have a major impact on many of the environmental problems facing our society. One tenth of the global economy is dedicated to buildings: construction, operating, equipment & furnishings, etc. This economic activity uses one-sixth to one-half of the world's wood, minerals, water, and energy. Modern buildings are to blame for much of the environmental damage occurring today; destruction of forests and rivers, air and water pollution, climate destabilization, etc.
   - With the surge in new agencies, etc in recent years there is a growing market and more importantly possible partners and support.
     - LEED
     - USGBC
     - Smart Growth Movements (There are several coalitions of national, state and local agencies working to improve the way we plan & build towns and cities)

APRC Questions for AT PRP

APRC Questions Response.
Mel Kantor

I. Program Overview

1. Discuss in more detail the uniqueness of the AT program compared to its counterparts at other Michigan institutions.
   - All registered architects.
   - Strong emphasis on CAD.
   - Strong emphasis on architectural materials and their incorporation into the building system.
   - Direct laddering in Ferris's FM Program.
2. Discuss how the proposed four-year architecture degree would differ from a BS in Architecture or a Bachelor of Architecture degree.
3. What would be the effect on the Facility Management BS program of adding a four-year architecture degree to the curriculum?

II. Collection of Perceptions

1. Please supply the perceptions of the AT faculty.
   - ?
2. Are AT faculty satisfied with the level of computer skills possessed by entering students?
   - The skills of incoming students are a mixed bag. Some come in with highly developed computer skills, other with average skills, and some with no computer skills. It is often dependent on where they attended high school. Overall, their skills are acceptable, but usually need additional help with cad skills.
3. Has the program considered how to raise the level of graduate communications skills?
   - We require students to do written and oral presentations throughout their tenure in both the AT & FM programs.
4. Comment on the student comments that suggest the presence of tension among the faculty that negatively affects the learning environment.
   - The tension between faculty has existed for years. It apparently has leaked into the classroom. This is unfortunate and unprofessional. Faculty should be encouraged to act professionally in public (the classroom) and keep their dissatisfactions more private.

III. Program Profile

1. What strategies has the program considered to address the attrition rate in the AT program?
   - No answer. It may be the nature of the beast. From the inception of the AT program attrition rates have always been high. This is usually the case in all types of architectural schools. Often students have little or no idea of what an architectural technology education means. Often they believe it means designing houses, and when they find out differently they become disillusioned and change curriculum.
2. When students attrit from the AT program, where do they go?
3. Please supply the administrative program review document for the AT program.
4. How might the AT program attract more minorities and women?
   - No answer.
5. What is the Fall '05 enrollment for AT?
6. Why did the two-year graduation rate for AT go from 71% to 100% in a two-year period?
7. Please supply some sample syllabi.

APRC Questions for AT PRP

IV. Facilities and Equipment

1. Discuss in more detail the facilities evaluation for AT.

V. Conclusions

1. What interest in terms of student and the labor market have led the program to conclude that there is demand for a four-year architecture degree?

APRC Questions Response.
Joe Samson

I. Program Review.

I.1. Discuss in more detail the uniqueness of the AT program compared to its counterparts at other MI institutions.

Some of the things that are unique about Ferris' AT program are:

- The focus of the program is on commercial vs. residential architecture. Since the goal of the program is to produce graduates who are competent to work in entry level positions within architectural firms, it is appropriate that the students be prepared to work on commercial projects. The bulk of architectural work is commercial in nature. Also, the two baccalaureate programs at Ferris which this degree feeds into, Facility Management and Construction Management, also deal with commercial architecture.
- The program feeds into two baccalaureate programs at Ferris, Facility Management and Construction Management.
- All professors who teach in the program are licensed architects and have considerable experience in architectural practice.

I.2. Discuss how the proposed four-year architecture degree would differ from a BS in Architecture or a Bachelor of Architecture degree.

First, the process of the development of a new four-year degree has not proceeded far enough to warrant discussion at this program review. However, the desire of the faculty is to provide students who are interested in further preparation within the architectural profession an option to the Facility Management and Construction Management degrees. The current thought is to focus on developing an appreciation, understanding of theory, and practical skills in approaching architectural technology and practice from a green perspective.

BS degrees in architecture are primarily design vs. technology oriented.

Bachelor of Architecture degrees are obsolete since the new standard for education for those seeking licensure in Architecture within Michigan and most other states is a Master of Architecture. This degree also focuses mainly on design vs. technology.

I.3 What would be the effect on the Facility Management BS program of adding a four-year architecture degree to the curriculum?

I think this is also too early to judge. Surveys specific to the proposed curriculum (when it is known) would need to be developed, executed, and analyzed. Definitely both programs would need to recruit students from other associate level programs to achieve acceptable enrollment levels. I think even with the best of marketing surveys this would largely be unknown until the new degree was implemented for at least 5 years.

II. Collection of Perceptions.

II.1. Please supply the perceptions of the AT faculty.

My perception is that the AT program provides a challenging entry for those interested in careers in the built environment. It offers opportunity to students who are not academically prepared for architectural school, who are interested in the planning of the built environment but not necessarily design, as well as a chance to discover professions allied to architecture. It is also my observation that many students are not academically or psychologically prepared to take full advantage of these opportunities as first year students.

Many students come to the program expecting it to be something other than what it is: Designing houses, doing CAD, being engineering, being art, etc. I believe this to be the reason for high attrition rates.

I also observe that students mature, discover, focus, and start to take ownership of their futures and their careers. This happens especially in the second year of the program and for those who pursue baccalaureate degrees continues in the third and fourth years.

I think the first year consistently provides a strong foundation for techniques and practice for architectural technology documentation. I think some courses in the second year need more definition or perhaps supervision to ensure that faculty provide a consistent experience for students that reflects the content of the course outlines.

Another area of concern is that programs are expected to be relatively autonomous enterprises. All improvements to facilities, other than new computers, have been achieved by the efforts of Diane Nagelkirk, the program chair. The appearance of the teaching spaces is critical to the recruitment and retention of students.

The college and the university, in my opinion have been vague in developing and implementing policies for the direction in which they would like to see academic programs develop. I do not think faculty, who are extremely busy with the day to day teaching, are in the position to strategically see the big picture of where the university wants to move. There needs to be a more concrete strategic plan for the university and the college. This plan should be thoughtfully developed and not rushed into. Future program should be developed consistently with those goals.

This said, I believe the AT program is valuable and provides a broad enough foundation to allow students to successfully pursue careers dealing with various aspects of the built environment.

II.2 Are AT faculty satisfied with the level of computer skills possessed by entering students?

I am satisfied with their general computer skills. IE. Microsoft Office, etc.

I would prefer they had NO cad experience. They are not taught appropriate methods of using CAD in high school and tech centers and this is an impediment to having students with minds open to what we are teaching them in these areas.

II.3. Has the program considered how to raise the level of graduate communication skills?

Most students in our programs are more visual. The most effective way to develop these skills is to encourage student presentations, perhaps requiring the public speaking vs. the interpersonal communications speech course option.

II.4. Comment on the student comments that suggest the presence of tension among the faculty that negatively affects the learning environment.

As far as I know all faculty groups have these types of disagreements. These problems have been going on for the 17 years I have been here. I think that in our case the problem is that some faculty see things as black and white and will not tolerate other opinions. In some cases this leads other faculty to be defensive and to perhaps feel insecure and reciprocate by publicly making negative comments with regard to what other faculty are doing. I think all the faculty in our group seem to be insecure to some degree and this exacerbates the situation. If faculty respected each others diverse points of view with regard to what architecture is and what its practice means, the learning experience for students can be enhanced.

Another thing that leads to friction amongst faculty is that there are many problems that do not get resolved. Some problems are perceived while others are real. The fact that not all faculty members contribute to the development and maintenance of the program fuel these tensions. IE. Program review and upkeep of teaching spaces, etc. The faculty group has at various times attempted to address these problems through team building and other non-productive attempts. Since all members of the department, including the chair, are colleagues, these problems need to be dealt with at an administrative level.

The organizational model used by the university and the college does not provide an appropriate vehicle to deal with dysfunction. Everyone within the department is a colleague. If things get out of hand, administrators are unwilling or unable to deal with the issues. This may be partly due to the fact that they are so far removed and unfamiliar with the situation or possibly due to union concerns.

III. Program Profile.

III.1. What strategies has the program considered to address the attrition rate in the AT program?

The attrition rate is high for several reasons.

- Architectural programs traditionally have high attrition rates. When I went through architecture school in the 1970s the Director of the School told us that 2/3s of the students would not graduate. This turned out to be true. Of a class of about 100 first year students, only about 30 graduated.

- Architecture is a profession that is misunderstood. The public views it in many different ways: artistic vs. engineering oriented and technical, design for own satisfaction vs. design for client satisfaction, 9-5 type job vs. boom and bust economy. Part of the first year in an architectural program is becoming aware of those realities.
- Architecture requires skills that cannot be readily taught. The ability to be creative, to "see" three dimensionally, to problem solve three dimensionally, etc. seem to require innate vs. learned skills.
- Architecture is time consuming. To do good work takes time. There are studios and thus more contact hours than other majors. Students compare and some take the easier way out.
- Architecture is relatively low paying compared to other careers. Students have to be committed to liking what they do vs. high monetary reimbursement.

However, I do think that students often come to Ferris because of architecture and stay at Ferris but move to other programs. At least that is my experience when advising. The ones withdraw from the university tend to be the ones who are not prepared academically.

III.4. How might the AT program attract more minorities and women?
Actually it seems that there are consistently more minorities and women now than when I first started here in 1988. In my class of 19 I have 2 minority men and 1 minority woman plus 4 non-minority women. Over 36% of my class consists of women and minorities.

Another thing I have noticed is that the women and minority students currently enrolled in the program seem much better prepared to be successful in our program.

Our new promotional materials feature women and minorities. Perhaps this also helps.

APRC Questions for AT PRP

APRC Questions Response.
Gary Gerber

I. Program Overview

1. Discuss in more detail the uniqueness of the AT program compared to its counterparts at other Michigan institutions. We have a faculty group of registered architects that differentiates us in the market place.
2. Discuss how the proposed four-year architecture degree would differ from a BS in Architecture or a Bachelor of Architecture degree.

Our chair doesn't want our opinion...

3. What would be the effect on the Facility Management BS program of adding a four-year architecture degree to the curriculum?

Our chair doesn't want our opinion... some of us believe it will affect the enrollment in FM.

II. Collection of Perceptions

1. Please supply the perceptions of the AT faculty.

Bruce Dilg's part of the report...

2. Are AT faculty satisfied with the level of computer skills possessed by entering students?

Students possess a basic level of computer competency. A minority of students have the skills that are needed in the professional environment.

3. Has the program considered how to raise the level of graduate communications skills?

No

4. Comment on the student comments that suggest the presence of tension among the faculty that negatively affects the learning environment.

Our faculty group needs a conflict resolution program or team building program or leadership training\management program. There has been a long-standing culture of blaming and scapegoating rather than constructive group problem solving. This tension is not healthy.

III. Program Profile

1. What strategies has the program considered to address the attrition rate in the AT program?

Students come to AT from high school not realizing what the industry is about. A certain number of students that will leave architecture due to the amount of work compared to the their (society's) perception of the profession. We should benchmark with other institutions in architecture.

2. When students attrit from the AT program, where do they go? Diane can answer this with her exit interviews.
3. Please supply the administrative program review document for the AT program.
5. How might the AT program attract more minorities and women?

Recruit in areas that are predominately minority in composition.

6. What is the Fall '05 enrollment for AT?

Diane should have this information.

6. Why did the two-year graduation rate for AT go from 71% to 100% in a two-year period?

???

7. Please supply some sample syllabi.

IV. Facilities and Equipment

1. Discuss in more detail the facilities evaluation for AT.

This could be due to a mistake of placing the FM facility review with the AT facility review.

V. Conclusions

1. What interest in terms of student and the labor market have led the program to conclude that there is demand for a four-year architecture degree?

We aren't in agreement as a faculty group. Personally, I question that there is a market for an "environmental design program" as a parent of a student currently in our program. Our students have a choice of FM or CM for a BS degree. If I were trying to direct my child for a job in architecture, I would advise her to go to an accredited degree program—despite the fact that she receives an 8 credit/semester discount.

APRC Questions for AT PRP

APRC Questions Response.
Bruce Dilg

I. Program Overview

1. Discuss in more detail the uniqueness of the AT program compared to its counterparts at other Michigan institutions.

   I am not aware of any program, even at NAAB accredited architecture programs, much less at a two year AT program, that is taught 100% by licensed architects, all of whom have had, or continue to have, real world office experience. The value of this cannot be over-emphasized.

   Our Professional Practice Course utilizes the American Institute of Architecture Student Handbook as a textbook. This is a very high level book. The professor who teaches this course is one of the reviewers of the text for Wiley.

   Our text for ARCH112 and ARCH115 are used in the upper level of accredited architecture programs, for instance Lawerence Technological University.

2. Discuss how the proposed four-year architecture degree would differ from a BS in Architecture or a Bachelor of Architecture degree.
3. What would be the effect on the Facility Management BS program of adding a four-year architecture degree to the curriculum?

II. Collection of Perceptions

1. Please supply the perceptions of the AT faculty.

   My perception of the AT program, which is what I assume they are asking, is that the program is one of the finest of its kind in the nation. When I first reviewed the curriculum in 1986, prior to joining the faculty, I was amazed that all of the things that I, as a practicing architect, needed from incoming new employees were being taught at Ferris State University. Construction Documents, Materials, Professional Practice, Mechanical/Electrical Systems balanced with a fine general education background in English, Speech and Math and Science led me to very excited about joining the program.

   There were a couple of short-comings that I expressed in my interview. Cost estimating, detailing and integration of CAD into the curriculum were the specific areas I noted in 1986. The other item I noted as absolutely necessary was to move from a product oriented mentality to a process oriented, critical thinking approach. Although this is very difficult, especially with most of the students we seem to attract to Ferris, I believe that we are moving in this direction. All the other issues have been rectified since that time and are not included in the curriculum.

   The other observation I made in 1986 was that the program suffered from lack of leadership. The one faculty member who perceived himself as the leader did not

have, in my opinion, the respect of the rest of the faculty. The Department Head at the time totally agreed with my perception. Unfortunately, this is still today, in my opinion, the case. The faculty group has become much more diverse then it was when I started and the interest and experience in the technical aspects of the profession have wained. Consequently we have seen movement away from this towards a less technically challenging curriculum. When this diversity is combined with the aforementioned issue of leadership, it has produced, in my opinion, a program that is missing the opportunities that the changes in the profession have given it. The program at Ferris, with its association with a College of Technology and programs like Building Construction, Construction Management, Surveying Engineering and HVAC is uniquely postured with the potential to be the premier program in the nation.

The changes in the profession, the changes in the student, the changes in society where the minimum ticket of admission is now a Bachelors degree, the explosion of information availability, and the maturation levels of students all are demanding a minimum of a four year program.

I believe that if Ferris does not institute a minimum of a four year program in Architectural Technology, taking advantage of its roots and heritage, that it will die. When I came here, students got good jobs at an entry level in an exclusive profession because they could draw well. Today, my mother draws as well as I can with the advent of the computer. We must move to a new level.

2. Are AT faculty satisfied with the level of computer skills possessed by entering students?

   In general, yes. If anything my experience has been that those students who come into our program having never experience a CAD program in high school do better then those who come in having had CAD in high school. The "experienced" students who come from high school programs have a false sense of the value of the computer. Word processing skills, internet skills, are much more important, in my opinion, then CAD skills.

3. Has the program considered how to raise the level of graduate communications skills?

   Not only considered it, but I have implemented communication exercises in every class. There is not a class I teach, CAD, Detailing, Professional Practice, where students are not required to write papers during the course. In addition, virtually every test I give is an essay test requiring the ability to demonstrate critical thinking and expressing it in the written word.

   In addition, every class I teach requires oral presentations by students. These might be in the form of drama's in Professional Practice to allow students to act out real world situations based on the General Conditions of the Contract, it might be in the form of mock job interviews with a real employer conducted in front of the rest of the class in Professional Practice, it might be in the form of Collaborative Learning in Detailing where students must work in small groups to present every lecture

covering the chapters in the text, it might be in the form of team oral presentations in Materials explaining an actual building that has been researched and the students must present.

This skill, in my opinion, is absolutely vital.

4. Comment on the student comments that suggest the presence of tension among the faculty that negatively affects the learning environment.

I am very appreciative of the students having expressed this opinion. The tension, in my 40 year experience, goes beyond anything that I have ever experienced and is not only detrimental to the learning environment for the students but also to the teaching environment for the faculty. This is an extremely dysfunctional group of people. The faculty have twice tried to do something specific about this issue, engaging in two full day sessions, first with a psychologist in Grand Rapids and then with a Communications Faculty member here at Ferris. Neither of the sessions in my opinion, have produced positive results. There is virtually no recognition of the strengths and value that anyone brings to the program in the expressed view of the other faculty. There is back biting and deception that happens on a regular basis. For several years this even led to dismissal of several faculty members. This dismissal has not happened recently but the tension is succinct and very damaging. I am hopeful that an upcoming retirement will go a long way towards addressing this issue but I am afraid that too much damage may have been done.

The latest example is the pro-offering of the advanced degree in this document. This was done with virtually no faculty input, in my opinion. From my own point of view, the input that I did give on the proposal was not even acknowledged as having been received, much less discussed. This is typical of the dysfunction with which this program is plagued.

We continue to survive and produce some very successful students in spite of these issues. The frustration is that we could do so much more and the atmosphere for the students and the faculty could be so much more enjoyable then it currently is.

III. Program Profile

1. What strategies has the program considered to address the attrition rate in the AT program?

We have discussed increasing our entrance requirements to attract a higher quality, more capable student. Unfortunately the attrition rate of the program at Ferris matches that of any architectural program in the country. A student coming in from high school simply does not understand what is involved and how demanding the profession of architecture is.

One consideration that I think would address this issue, not only in the AT program, but all the construction related programs, is to have a common core

year. Much of our math, and other general education is very similar. During this time a student could be exposed to each of the disciplines within the construction arena before making a decision. Unfortunately, every time I have tried to raise this possibility the issue of accreditation and faculty protection of their area has squashed it before it ever got a serious hearing.

2. When students attrit from the AT program, where do they go?
3. Please supply the administrative program review document for the AT program.
5. How might the AT program attract more minorities and women?

I don't know that we can. I believe, without any supporting data, that we have more women faculty and students then any program in the construction arena at Ferris. We have made concerted efforts to attract minority students from places like Cass Tech. Unfortunately, with only a two year program, these students who are academically prepared to handle architecture want to go to a school of architecture. There simply is little place in the profession any more, for someone with only a two year degree.

5. What is the Fall '05 enrollment for AT?
6. Why did the two-year graduation rate for AT go from 71% to 100% in a two-year period?
7. Please supply some sample syllabi.

IV. Facilities and Equipment

1. Discuss in more detail the facilities evaluation for AT.

V. Conclusions

1. What interest in terms of student and the labor market have led the program to conclude that there is demand for a four-year architecture degree?

Section I (question 1 - all faculty)
Section 11 (all questions - all faculty)
Section III (question 1, 4 - all faculty)
Section IV (question 1- Gary)

Ferris State University
Administrative Program Review 2004
College of Technology
Pre-Architectural Technology AAS

Student Enrollment

	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Freshman Headcount	18		18	5		5	10		10	15		15	9		9
Freshman SCH's	254		254	66		66	141		141	230		230	138		138
Sophomore Headcount	2		2	2		2			0	2		2			0
Sophomore SCH's	26		26	33		33			0	30		30			0
TOTAL HEADCOUNT	20		20	7		7	10		10	17		17	9		9
TOTAL SCH's	280		280	99		99	141		141	260		260	138		138

Graduates

	Academic Yr 99/00			Academic Yr 00/01			Academic Yr 01/02			Academic Yr 02/03			Academic Yr 03/04		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Number of Graduates			0			0			0			0			0

Ferris State University
Administrative Program Review 2004
College of Technology
Architectural Technology AAS

Student Enrollment

	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Freshman Headcount	37		37	33		33	32		32	42		42	35		35
Freshman SCH's	576		576	490		490	514		514	661		661	568		568
Sophomore Headcount	27		27	30		30	21		21	24		24	37		37
Sophomore SCH's	395		395	469		469	313		313	347		347	571		571
Junior Headcount	13		13	18		18	10		10	7		7	5		5
Junior SCH's	170		170	264		264	146		146	107		107	79		79
Senior Headcount	1		1	4		4	5		5	3		3			0
Senior SCH's	14		14	63		63	67		67	39		39			0
TOTAL HEADCOUNT	78		78	85		85	68		68	76		76	77		77
TOTAL SCH's	1155		1155	1286		1286	1040		1040	1154		1154	1218		1218

Graduates

	Academic Yr 99/00			Academic Yr 00/01			Academic Yr 01/02			Academic Yr 02/03			Academic Yr 03/04		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Number of Graduates	14		14	16		16	26		26	25		25	16		16

Source: 7th/4th Day Counts
Institutional Research and Testing
1/26/2005

Ferris State University
Administrative Program Review 2004
College of Technology
Pre-Facilities Management BS

Student Enrollment

	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Freshman Headcount	1		1			0			0			0			0
Freshman SCH's	12		12			0			0			0			0
Junior Headcount			0	1		1			0	1		1	1		1
Junior SCH's			0	16		16			0	16		16	16		16
Senior Headcount			0			0			0	1		1			0
Senior SCH's			0			0			0	3		3			0
TOTAL HEADCOUNT	1		1	1		1			0	2		2	1		1
TOTAL SCH's	12		12	16		16			0	19		19	16		16

Graduates

	Academic Yr 99/00			Academic Yr 00/01			Academic Yr 01/02			Academic Yr 02/03			Academic Yr 03/04		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Number of Graduates			0			0			0			0			0

Source: 7th/4th Day Counts
Institutional Research and Testing
1/26/2005

Ferris State University
Administrative Program Review 2004
College of Technology
Facilities Management BS

Student Enrollment

	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Freshman Headcount		2	2		2	2		4	4		2	2			0
Freshman SCH's		9	9		6	6		12	12		6	6			0
Sophomore Headcount	1		1	1		1	1		1			0			0
Sophomore SCH's	13		13	15		15	3		3			0			0
Junior Headcount	5		5	9		9	9		9	2		2	8		8
Junior SCH's	73		73	132		132	135		135	33		33	116		116
Senior Headcount	19		19	16		16	19		19	15		15	9		9
Senior SCH's	277		277	249		249	308		308	232		232	119		119
TOTAL HEADCOUNT	25	2	27	26	2	28	29	4	33	17	2	19	17		17
TOTAL SCH's	363	9	372	396	6	402	446	12	458	265	6	271	235		235

Graduates

	Academic Yr 99/00			Academic Yr 00/01			Academic Yr 01/02			Academic Yr 02/03			Academic Yr 03/04		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Number of Graduates	9		9	13	1	14	9		9	14	1	15	15		15

Source: 7th/4th Day Counts
Institutional Research and Testing
1/26/2005

Ferris State University
Administrative Program Review 2004
College of Technology
Facilities Management CT

Student Enrollment

	Fall 2000			Fall 2001			Fall 2002			Fall 2003			Fall 2004		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Freshman Headcount		15	15		6	6		4	4		7	7		2	2
Freshman SCH's		54	54		18	18		15	15		30	30		6	6
Sophomore Headcount		1	1			0			0			0			0
Sophomore SCH's		6	6			0			0			0			0
Junior Headcount		1	1		1	1		1	1			0			0
Junior SCH's		3	3		6	6		6	6			0			0
Senior Headcount		2	2			0		5	5		4	4		2	2
Senior SCH's		9	9			0		24	24		19	19		6	6
TOTAL HEADCOUNT		19	19		7	7		10	10		11	11		4	4
TOTAL SCH's		72	72		24	24		45	45		49	49		12	12

Graduates

	Academic Yr 99/00			Academic Yr 00/01			Academic Yr 01/02			Academic Yr 02/03			Academic Yr 03/04		
	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total	On	Off	Total
Number of Graduates		11	11		9	9		9	9		11	11		8	8

Source: 7th/4th Day Counts
Institutional Research and Testing
1/26/2005

Academic Program Review Panel

Architectural Technology
Associate in Applied Science

Diane Nagelkirk, AIA
Department Chair, Associate Professor
APR Panel Chair

Mary Brayton, AIA
Associate Professor

Bruce Dilg, NCARB
Associate Professor

Gary Gerber, AIA, CSI, CDT, LEED AP, USGBC
Associate Professor

Mel Kantor, AIA, CFM
Professor

Joe Samson, CFM
Associate Professor

Dr. Susan Morris, Professor
Humanities Department

David Sabota, AIA
DTS Architects

Table of Contents

Appendix

Section	Topic
A	Program Guide Sheets
B	Sample Surveys
C	Faculty Vitae

August 25, 2005

Diane Nagelkirk, AIA
Department and Program Review Chair
Architectural Technology
Ferris State University

Susan Morris, PhD
Associate Professor
Humanities, CAS
Ferris State University

Ms. Nagelkirk,

Below are my responses to the Academic Program Review Report in Architectural Technology as required by my membership on the program review committee. As an 'outside' committee member, I will, of course, have none of the expertise of the other members of the committee. My remarks will therefore emphasize observations I make related to disciplines in the College of Arts and Sciences as well as, perhaps, common-sense observations.

Academic Program Review Report
Architectural Technology

Employer Follow-up Survey: Of the performance issues addressed in the **General Skills** portion of the survey, two fell far below the others, namely **Effective Oral Communication** and **Effective Written Communication Skills.** What this seems to suggest is that the Architectural Technology Program might consider choosing more courses in communication skills, including courses that require a higher level of cognitive language skills, like interpretation and analysis. In addition, even though the students in the **Graduate Exit Survey** ranked 244: Architectural History as an important course, there is quite a difference between student appreciation of architectural history and architectural technology. Perhaps the importance in architectural history could be emphasized in course requirements and in faculty modeling (like discussion with students, support for students visiting architecturally rich cities and locations, etc.).

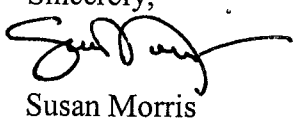
Likewise, in the **Design** portion of the **Employer Follow-up Survey**, there was a marked difference between the students' technical skills and their awareness of **Architectural History.** More courses in Architectural History might be added to the program and/or courses in art history for a depth of contextual understanding.

I was very pleased to see many indications that program graduates pursue further education (pointed out especially in the list of employee comments and in the **Graduate Exit Survey**). I would draw from this that the students were satisfied with both the program content and the educational experience and felt encouraged to continue. This seems to speak highly of the quality of faculty in the classroom. It also seems to suggest

that the students conclude quite readily that further education is advantageous or even required for them to meet their job and life expectations. On the other hand, there were student comments relating to faculty tension. Although it is not uncommon for tensions between faculty members in any department to exist, these tensions are best kept away from the students. Having said that, we are all challenged by this problem.

There are survey questions and materials in the document related to the possibility of creating a B.S. in Architecture at Ferris. Based on the information that former students go on in education and that those students in the program or recently graduated intend to, it would seem reasonable to create such a program. Hopefully, a B.S. in Architectural Technology is given serious consideration.

Sincerely,



Susan Morris

Program Overview

Program Goals

Prepared by: Diane Nagelkirk

The Architectural Technology Associate Degree program was established in the early 1950's as an Architectural Drafting program. Originally a program dealing primarily with pencil and paper drafting, it has evolved into Architectural Technology with a strong focus on building technology and CAD (computer aided design) that builds proficiency in critical thinking and technical skills.

Mission Statement

The mission of the Architectural Technology Associate Degree program is to provide students with an architectural foundation of concepts, skills and values necessary to, upon completion of the program, enter the employment market at an entry-level position in architecture and professions related to the built environment or continue education for a baccalaureate or advanced degree in professions related to the built environment.

Through our career-oriented program, the Architectural Technology program supports the FSU mission by contributing to the workforce needs of Michigan and prepares students to be lifelong learners in a rapidly changing and diverse world. We actively engage students in the learning process, both inside and outside the classroom, in order to help each student maximize his or her potential.

Program Objectives

Program goals and objectives are established by faculty with guidance from the Architectural Technology advisory committee. Program goals and objectives are also responsive to the changing needs and trends of the architectural profession. Since the last program review the use and degree of the computer has impacted classroom learning and activities. The efficiency of the computer has allowed more time for engaging students in critical thinking and has resulted in a higher level of student performance and a higher level of technical sophistication.

Under the guidance of the faculty of professional, licensed architects the program prepares students to:

- Develop manual and computer aided graphic skills and other appropriate visual communication skills necessary to document the architectural process that includes the design development and construction document phases.
- Develop knowledge of building materials, building systems and technology in conjunction with the architectural process and construction process.
- Develop a basic understanding of architectural design, the history of architecture and an appreciation of architecture.
- Develop a basic awareness of professional practice.
- Develop a foundation in mathematics, physical science, and written and verbal communication.

The Architectural Technology program has a long and proud history of providing professional cutting-edge architectural technology education. The program is recognized among Michigan architects as producing qualified, employable graduates with valued technical skills. Our graduates currently enjoy successful careers in architecture, facility management, construction management, interior design and other areas of the built environment.

Program Visibility and Distinctiveness

Prepared by: Diane Nagelkirk

Taught by practitioners, the architectural technology curriculum is unique in its emphasis on the practice of the profession. Studio classes provide students with experience in the areas of residential and commercial building materials, cost estimating, architectural CAD drafting, construction methods, building codes, presentation techniques and architectural design. The curriculum provides the skills, knowledge, and the necessary preparation to allow students to become successful architectural technicians or pursue related educational opportunities after graduation.

Several career path options are available to students upon completion of the associate degree in Architectural Technology. This distinct feature promises the following viable opportunities after 2 years of study:

- Enter into the architectural profession as an architectural technician.
- Continue education at Ferris in the upper-division sequence leading to the B.S. in Facility Management.
- Continue education at Ferris in the upper-division sequence leading to the B.S. in Construction Management.
- Continue education at Ferris for a baccalaureate degree in the College of Education or the College of Business.
- Transfer to an accredited architectural design program.

The primary market for Ferris' Architectural Technology program is high school students who are interested in computer drawing and architecture. Survey results indicate that students choose Ferris because of the program's reputation and the desire to study at a university. Over the past 5 years a greater number of students continue beyond the associate degree to further their educational experience. Students desiring additional education in architecture beyond the associate degree must transfer to other institutions. The presence of a B.S. in Architecture would provide those students the opportunity to continue at Ferris. Additionally, we believe the presence of a B.S. in Architecture would attract more serious, academically qualified students who wish to receive advanced degrees in architecture and/or become licensed architects.

There are 11 institutions in Michigan offering architectural drawing, drafting, or technology programs: Delta College, Grand Rapids Community College, Henry Ford Community College, Lansing Community College, Macomb Community College, Monroe Community College, Mott Community College, Oakland Community College, St. Clair County Community College, Washtenaw Community College and West Shore Community College.

In comparison to Ferris' Architectural Technology program, the institutions listed above offer a variety of programs that differ in scope and quality from residential design to computer aided drafting. For example, Grand Rapids Community College offers a program titled Architectural Drafting Technology with a strong focus on architectural

drawings. We believe that Ferris' Architectural Technology program offers a more comprehensive look at the architectural profession and provides more breadth and depth in terms of course content than the institutions listed above. In addition, Ferris' Architectural Technology program is unique in that all faculty teaching in the program are licensed architects and former and current practitioners in the profession.

Program Relevance

Prepared by: Diane Nagelkirk

Labor Market Demand:

Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Outlook Handbook, 2004-2005.

Job Outlook for Drafters

Employment of drafters is expected to grow more slowly than the average for all occupations through 2012. Industrial growth and increasingly complex design problems associated with new products and manufacturing processes will increase the demand for drafting services. Further, drafters are beginning to break out of the traditional drafting role and increasingly do work traditionally performed by engineers and architects, thus also increasing demand for drafters. However, the greater use of CADD equipment by drafters, as well as by architects and engineers, should limit demand for lesser skilled drafters, resulting in slower-than-average overall employment growth. Most job openings are expected to arise from the need to replace drafters who transfer to other occupations, leave the labor force, or retire.

Opportunities should be best for individuals with at least 2 years of postsecondary training in a drafting program that provides strong technical skills, as well as considerable experience with CADD systems. CADD has increased the complexity of drafting applications while enhancing the productivity of drafters. It also has enhanced the nature of drafting by creating more possibilities for design and drafting. As technology continues to advance, employers will look for drafters with a strong background in fundamental drafting principles, a higher level of technical sophistication, and an ability to apply their knowledge to a broader range of responsibilities.

Demand for particular drafting specialties varies throughout the country because employment usually is contingent upon the needs of local industry. Employment of drafters remains highly concentrated in industries that are sensitive to cyclical changes in the economy, such as manufacturing and architectural and engineering services. During recessions, drafters may be laid off. However, a growing number of drafters should continue to find employment on a temporary or contract basis as more companies turn to the employment services industry to meet their changing needs.

Earnings for Drafters

Earnings for drafters vary by specialty and level of responsibility. Median annual earnings of architectural and civil drafters were $37,330 in 2002. The middle 50 percent earned between $30,170 and $45,500. The lowest 10 percent earned less than $24,570, and the highest 10 percent earned more than $56,260. Median annual earnings for

architectural and civil drafters in architectural, engineering, and related services were $36,780.

Median annual earnings of mechanical drafters were $40,730 in 2002. The middle 50 percent earned between $32,100 and $51,950. The lowest 10 percent earned less than $25,950, and the highest 10 percent earned more than $64,780. Median annual earnings for mechanical drafters in architectural, engineering, and related services were $41,170.

Median annual earnings of electrical and electronics drafters were $41,090 in 2002. The middle 50 percent earned between $32,060 and $53,440. The lowest 10 percent earned less than $25,710, and the highest 10 percent earned more than $68,000. In architectural, engineering, and related services, median annual earnings for electrical and electronics drafters were $39,760.

Job Outlook for Architects

Prospective architects may face competition for entry-level positions, especially if the number of architectural degrees awarded remains at current levels or increases. Employment of architects is projected to grow about as fast as the average for all occupations through 2012, and additional job openings will stem from the need to replace architects who retire, transfer to new occupations, or leave the labor force permanently for other reasons. However, many individuals are attracted to this occupation, and the number of applicants often exceeds the number of available jobs, especially in the most prestigious firms. Prospective architects who gain career-related experience in an architectural firm while they are still in school and who know CADD technology—especially that which conforms to the new national standards—will have a distinct advantage in obtaining an intern position after graduation.

Employment of architects is strongly tied to the level of local construction, particularly nonresidential structures such as office buildings, shopping centers, schools, and healthcare facilities. Employment in nonresidential construction is expected to grow because the replacement and renovation of many industrial plants and buildings has been delayed for years and a large number of structures will have to be replaced or remodeled, particularly in urban areas where space for new buildings is becoming limited. On the other hand, technology enhancements will dampen demand for new commercial construction as nontraditional work and retail environments, such as teleconferencing, home offices, telecommuting, and electronic shopping, proliferate.

Demographic trends and changes in healthcare delivery will influence the demand for certain institutional structures and should also provide more jobs for architects in the future. A growing and aging population will drive demand for the construction of adult daycare, assisted-living, and other outpatient facilities, all of which are preferable, less costly alternatives to hospitals and nursing homes. Similarly, the construction of schools will increase to accommodate growth in the school-aged population. Additions to existing schools (especially colleges and universities), as well as overall modernization, will continue to add to demand for architects through 2012.

Demand for residential construction is also expected to continue to grow. As the baby boomers reach their peak earning years and can afford to spend more on housing, demand for larger homes with more amenities, as well as for second homes, will continue to rise. Some older, more affluent, members of the baby-boom generation will want townhouses and condominiums in conveniently located suburban and urban settings. At the same time, as the "echo boomers" (the children of the baby boomers) start to augment the younger age groups, the demand for starter homes and rental apartments also should increase.

Growth in demand for new-home construction will be tempered by consumers' preference to perform home improvements and renovations—especially in attractive, established neighborhoods—rather than construct new homes. Many starter homes will be remodeled to appeal to more affluent, space- and amenity-hungry buyers. Also, as buyers trade up, some may prefer to remodel existing homes, rather than construct new homes.

Because construction—particularly office and retail construction—is sensitive to cyclical changes in the economy, architects will face especially strong competition for jobs or clients during recessions, and layoffs may ensue. Those involved in the design of institutional buildings, such as schools, hospitals, nursing homes, and correctional facilities, will be less affected by fluctuations in the economy.

Even in times of overall good job opportunities, however, there may be areas of the country with poor opportunities. Architects who are licensed to practice in one State must meet the licensing requirements of other States before practicing elsewhere. Obtaining licensure in other States, after initially receiving licensure in one State, is known as "reciprocity" and is much easier if an architect has received certification from the NCARB (National Council of Architectural Registration Boards).

Earnings for Architects

Median annual earnings of wage and salary architects were $56,620 in 2002. The middle 50 percent earned between $44,030 and $74,460. The lowest 10 percent earned less than $36,280, and the highest 10 percent earned more than $92,350.

Earnings of partners in established architectural firms may fluctuate because of changing business conditions. Some architects may have difficulty establishing their own practices and may go through a period when their expenses are greater than their income, requiring substantial financial resources.

Professional architects throughout Michigan were surveyed during the summer of 2003 regarding employment needs and salary potential for gradutes with a NAAB (National Architectural Accrediting Board) accredited degree. A compiled report is available for review and the overall results indicate considerable potential to earn higher salaries for employees with NAAB accredited degrees.

Program response to emerging issues:

Ongoing assessment of both employer and student needs occurs through yearly advisory board meetings, small focus-group student meetings conducted by department chair and student surveys. Comments and concerns expressed by these groups are annually reviewed by faculty and changes are implemented as appropriate. These changes include, but are not limited to, increased use of computer software and online resources in relevant studio classes, upgrade of studios to simulate an architectural office environment, decreased studio hours to reduce student contact hours, and additional student support through weekly structured AutoCAD workshops.

In addition, due to ongoing requests for advanced education in architecture by incoming students and area-wide architectural firms, program faculty recognizes the need to offer a 4-year B.S. degree in architecture. During the winter semester of 2003 a curriculum proposal was developed that comprised the offering of a B.S. degree on the Big Rapids campus and a Master of Architecture in collaboration with Kendall College of Art and Design. Due to budgetary issues and a change in leadership at the College level the proposal was delayed. A revised proposal is currently in progress that solely addresses the offering of a B.S. degree on the Big Rapids campus. With the ongoing shift of leadership at the College level it has been difficult to sustain a successful plan.

Student Attraction:

Student program survey results indicate that students choose Ferris for geographic location, cost of tuition, technical emphasis of AT program and reputation of the AT program.

Graduate survey results indicate that

Program Value

Prepared by: Diane Nagelkirk

The technical, career-oriented focus of the Architectural Technology program is in direct accord with and in support of the University mission statement. The success of the graduates in attaining employment in the profession with competitive salaries, in demonstrating their skills and knowledge, and in attaining advanced levels of responsibility within the workplace all point to the success and value of the program.

The program has maintained an excellent reputation and relationship with architectural firms in Michigan. Over the 50 years of the program's existence, graduates of the program have been, and are employed by a large percentage of architectural firms located throughout the state. Support and interest in the program by architects is demonstrated through ongoing monetary donations to the program and student scholarships. In addition, they donate their time to visit campus to meet with students, to host student field trips to architectural offices and building sites, and to serve on the Architectural Technology Advisory Committee.

The program also serves as a solid foundation for laddering into the Facility Management program and Construction Management program. Faculty from both programs recognize the value of the 2-year curriculum and its preparation for a unique and broad academic experience and education.

The faculty group is a well-balanced mix of longevity and newness. All program faculty have strong professional experience in the practice of architecture and they bring this experience to the academic setting.

Program faculty has also been active in professional associations of the American Institute of Architects (AIA), the Construction Specification Institute (CSI) and the U.S. Green Building Council (USBGC). In addition to being members, several faculty have served as committee chairs and directors of local chapters. Faculty and students regularly attend chapter meetings of the Grand Valley Chapter of the AIA (GVAIA) in Grand Rapids.

Collection of Perceptions

Graduate Follow-up Survey

Prepared by: Mary Brayton

400 surveys were prepared and mailed to alumni of the Architectural Technology who graduated from 1987 to 2004. 95 surveys were completed and returned.

The results of questions 1-22 are presented such that the number of responses is indicated in parenthesis directly to the left of each statement. For question 20b alumni responses are shown in italics. The responses to question 23 are shown in a chart. For questions 24-70, the number of alums rating each statement is indicated in the column below the Leikert Scale, with a column to the right indicating the mean.

At the end of the survey the alumni were asked to respond with comments or recommendations. These are shown in italics under the year heading that the alum graduated.

A sample of the survey appears in Appendix B. The following is a summary of the results.

Background Information:

1. What year did you graduate with your Associate Degree in Architectural Technology?

(1) 1987	(8) 1993	(11) 1999	(1) 2005
(1) 1988	(10) 1994	(2) 2000	
(6) 1989	(0) 1995	(4) 2001	
(6) 1990	(2) 1996	(7) 2002	
(9) 1991	(5) 1997	(5) 2003	
(9) 1992	(4) 1998	(4) 2004	

2. Did you attend Ferris immediately after high school?
   a. (63) Yes.
   b. (32) No.

3. How did you learn of Ferris' Architectural Technology program?
   a. (49) High school teacher/counselor.
   b. (12) While attending another program at FSU.
   c. (5) From advisor at other college.
   d. (2) From visit by FSU faculty at other college.
   e. (27) Other

4. What attracted you most to Ferris' Architectural Technology program?
   a. (16) That it laddered directly into other 4 year programs at Ferris.
   b. (9) Location of Big Rapids' campus.
   c. (3) Job opportunities.
   d. (25) Technical focus of curriculum.
   e. (50) Would enjoy that type of work.
   f. (5) Other

5. When did you decide to pursue an Architectural Technology related career?
   a. (71) In high school.
   b. (10) While attending another program at FSU.
   c. (10) While attending another program at another college/university.
   d. (4) Other

6. Have you continued your education after graduation from the Architectural Technology Program?
   a. (64) Yes
   b. (31) No

7. Are you currently affiliated or certified with any of the following organizations? Circle all that apply.
   a. (5) AIA
   b. (1) CSI
   c. (2) LEED
   d. (65) None
   e. (17) Other

8. Do you currently live in Michigan?
   a. (81) Yes.
   b. (14) No.

I received the following FSU Degree(s). Please circle all that apply.

9. a. (85) Associate of Applied Science in Architectural Technology
   b. (32) Bachelor of Science in Facilities Management
   c. (11) Bachelor of Science in Construction Management
   d. (4) Other

Initial Employment Information:

10. How flexible were you geographically when considering job opportunities?
    a. (24) Willing to move anywhere.
    b. (44) Willing to move to certain regions.
    c. (0) Not willing to move to rural areas.
    d. (1) Not willing to move to cities.
    e. (21) Not willing to move outside Michigan.
    f. (5) Not willing to move outside home town.

11. How long after graduation were you offered an Architectural Technology related job?
    a. (17) Had job prior to graduation.
    b. (20) Had job within one month of graduation.
    c. (10) Had job within three months of graduation.
    d. (5) Had job within 6 months of graduation.
    e. (5) Had job within one year of graduation.
    f. (7) Took more than one year.
    g. (28) Other

12. Did you utilize Ferris' Career Placement services prior to graduation?
    a. (27) Yes
    b. (66) No

12a. If you answered Yes to the previous question, did you find your first job through Ferris' Career Placement services?
    a. (9) Yes.
    b. (20) No.

13. How would you categorize your first job related to Architectural Technology?
    a. (55) Full time.
    b. (13) Part time.
    c. (6) Temporary or contract.
    d. (3) Other

14. What was your starting annual salary at your first Architectural Technology related job?
    a. (30) Below $20,000.
    b. (25) $20,001-$25,000.
    c. (11) $25,001-$30,000.
    d. (4) $30,001-$35,000.
    e. (5) $35,001-$40,000.
    f. (3) More than $40,000.

15. What was your title at your first Architectural Technology related job?

(18) Draftsman	(1) Construction Laborer
(10) CAD Drafter	(1) Construction Manager
(7) Project Coordinator/ Manager	(1) Construction Supervisor
(6) Facility Planner/ Programmer	(1) Design Technician
(4) Architectural Designer	(1) Estimator
(4) Civil/ CAD Operator	(1) Layout Planner
(3) Staff/ Engineer	(1) Nextel Technician
(2) Residential Designer	(1) Office Assistant
(2) Superintendent	(1) Project Superintendent
(1) Associate	(1) Reinforcing Steel Detailer
(1) Component Designer	(1) Technical Drafter

16. Which of the following best describes your primary function at your first Architectural Technology related job?
    a. (60) CAD/Drafting Technician.
    b. (0) Structural/Mechanical/Electrical Technician.
    c. (2) Specification writer.
    d. (19) Other

17. Which of the following best describes your first place of employment?
    a. (20) Architecture firm.
    b. (11) Architecture and engineering firm.
    c. (7) Engineering firm.
    d. (17) Building Contractor
    e. (31) Other

18. Are you currently employed at your first Architectural Technology job?
    a. (19) Yes.
    b. (69) No. Please state employment history

Current Job Information:

19. Do you still work within the field of Architectural Technology?
    a. (49) Yes.
    b. (42) No.

20a. If yes, which of the following best describes your primary function at your current job?
    a. (15) CAD/Drafting Technician.
    b. (9) Job Captain.
    c. (1) Structural/Mechanical/Electrical Technician.
    d. (0) Specification writer.
    e. (34) Other

20b. If no, why did you choose to work in a field other than Architectural Technology?
To utilize my degree in Construction Management... unemployed construction laborer...chose to work in FM field following graduation from FSU... Never applied for a job related to Architecture – presently help run drywall business... Could not fine full time employment. No one would hire without experience and w/just the associate degree...Working on Masters degree in Architecture... No openings for non-experienced applicants... Job opportunities too little without continued education... Pays more... Got laid off from Meijer, couldn't find another CAD job w/comparable pay.

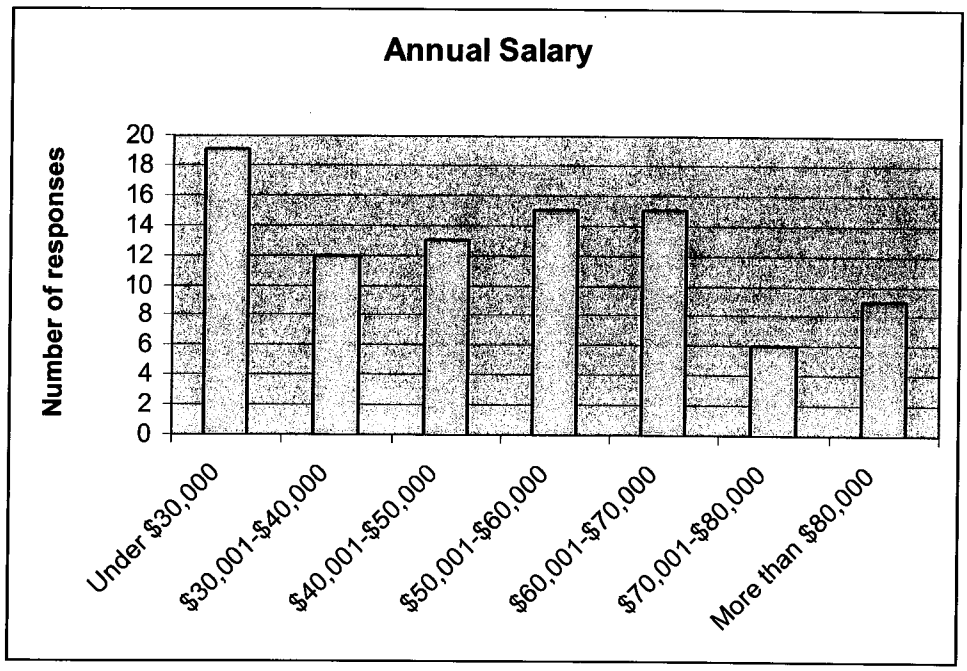
21. Which of the following best describes your current place of employment?
    a. (9) Architecture firm.
    b. (15) Architecture and engineering firm.
    c. (6) Engineering firm.
    d. (15) Building Contractor.
    e. (46) Other

22. What is your current title?

(2) Cadd Draftsman	(2) Arch. Draftsman	(1) sales eng/ Team leader
(1) Project assistant	(2) President	(1) Project Engineer
(2) Residential Designer	(2) Operations Manager	
(1) Draftsman/Window sales	(3) Engineer	(1) Licensed representative
(1) Unemployed	(2) co-owner	(1) Architectural Illustrator
(14) Project Manager	(1) CAFM Specialist	(2) Design Coordinator
(2) Principle	(1) Facility Coordinator	
(1) Job Captain	(2) Project Architect	(1) Consultant / Professor

(3) Construction Supervisor
(1) Territory Manager
(1) Nextel Technician
(1) Detailer
(2) Project coordinator
(4) Facility Planner
(1) Project Superintendent
(1) Designer / Estimator
(2) Architectural Technician
(1) Line cook
(1) Systems Engineer
(2) Drafter / Designer
(1) Project Planner
(1) Structural Designer
(1) Civil Engineer
(1) Variable Support Manager
(1) Software Quality analyst
(2) Design Manager
(1) Landscaper designer / Site planner
(2) Owner
(1) Director of Facilities
(1) Associate
(1) Production Team leader
(1) homemaker
(2) Vice President
(1) Facilities Capitol Manager
(1) 6-Sigma Black Belt
(1) Office Manager

23. What is your current annual salary?



Overall Satisfaction with Architectural Technology Degree:
Circle the number that most appropriately identifies your level of satisfaction.

	Not at all 1	Not very 2	Neutral 3	Very 4	Extremely 5	Unsure	Mean
24. How satisfied are you with the quality of the education you received through Ferris' Architectural Technology program?	0	2	10	46	34	1	4.2

Preparation in specific skill areas:
Circle the number that most appropriately identifies how well the Architectural Technology program prepared you for each of the tasks listed.
Consider the preparation as appropriate for an entry level position.

	General Skills:	Not at all 1	Not very 2	Neutral 3	Very 4	Extremely 5	Unsure or not applicable	Mean
25.	Responsibility, self-management.	1	2	22	52	15	3	3.8
26.	Leadership skills.	2	6	31	44	9	3	3.6
27.	Mathematical skills.	0	9	43	35	7	1	3.4
28.	Written communication skills.	0	11	45	29	9	1	3.4
29.	Oral communication skills.	0	10	33	39	11	2	3.5
30.	Architectural graphic skills.	0	3	6	45	41	0	4.3
31.	Sketching skills.	2	10	29	40	13	1	3.6
32.	Critical thinking and problem solving skills.	1	5	18	54	17	0	3.9
33.	Research skills.	2	2	23	49	17	0	3.8
	Design:							
34.	Ability to understand architectural design principles.	1	7	14	42	31	0	4.1
35.	Ability to transform schematic design drawings into design development drawings.	0	4	21	37	32	1	4.0
36.	Awareness of architectural history.	0	5	36	41	11	2	3.6
	Construction Documents:							
37.	Ability to effectively execute working drawings.	0	2	15	42	35	1	4.1
38.	Ability to understand building materials.	0	2	9	47	37	0	4.3
39.	Ability to detail building materials.	0	5	14	45	30	0	4.1
40.	Ability to understand construction methods and practices.	0	8	21	43	23	0	3.9

		Not at all 1	Not very 2	Neutral 3	Very 4	Extremely 5	Unsure or not applicable	Mean
41.	Ability to understand mechanical and electrical systems.	5	22	30	32	5	1	3.1
42.	Ability to understand structural design concepts.	3	9	25	44	13	1	3.6
43.	Awareness of environmental issues.	6	15	35	35	1	3	2.8
44.	Awareness of building codes and industry standards.	0	6	34	36	17	0	3.6
45.	Ability to understand specifications.	3	7	18	49	16	2	3.7
46.	Ability to understand cost estimate methods.	3	12	27	44	6	3	3.4
47.	Ability to understand project development phases.	3	6	30	36	16	4	3.6
48.	Awareness of project management.	1	14	27	39	11	3	3.5
49.	Awareness of industry standard references; CSI, ASTM, ANSI, etc.	1	7	25	46	15	1	3.7
50.	Awareness of AIA contract documents.	3	15	24	39	11	2	3.4
	Technical Skills:							
51.	Ability to effectively utilize 2-dimensional CAD software.	0	3	9	36	46	1	4.3
52.	Ability to effectively utilize 3-dimensional CAD software.	13	11	24	20	18	8	3.2
53.	Use of generic software such as Microsoft Office.	7	14	29	20	17	8	3.3

Relevance of specific courses to your career.
Circle the number that most appropriately rates the relevance of each course offered in the Architectural Technology program to what you do now.

		Unimportant 1	Not very important 2	Relevant 3	Important 4	Very important 5	Unsure or not taken	Mean
54.	Architectural graphics.	9	5	15	29	32	4	3.8
55.	Structural materials and systems.	6	4	19	31	30	4	3.8
56.	Computer graphics in architecture.	8	9	10	28	35	4	3.8
57.	Architectural construction documents.	6	8	10	21	45	4	4.0
58.	Interior and exterior finishes.	4	10	19	24	33	4	3.8
59.	Historical development of western architecture.	22	19	29	12	6	4	2.6
60.	Design principles.	7	8	20	24	29	4	3.7
61.	Architectural construction detailing.	9	5	12	23	45	4	3.9
62.	Mechanical & electrical systems.	11	7	18	37	17	4	3.5
63.	Statics and structures.	8	8	19	32	19	5	3.5
64.	Professional practice.	8	11	18	18	33	5	3.7
65.	Systems cost estimating.	12	9	20	23	23	7	3.4

Program growth:

		Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5	Unsure	Mean
66.	I believe advanced degrees in architecture at Ferris are a viable concept.	2	0	9	35	45	1	4.3
67.	I would have pursued a Bachelor of Science in Architecture had the degree been offered during my tenure at Ferris.	6	11	9	20	38	8	3.9
68.	I would have pursued a Master of Architecture had the degree been offered during my tenure at Ferris.	13	9	22	12	27	9	3.4

69.	The Western Michigan area is an optimal location for a new architecture program offering a Bachelor of Science in Architecture.	4	3	14	32	30	9	4.0
70.	The Western Michigan area is an optimal location for a new architecture program offering a Master of Architecture.	5	1	19	29	27	9	4.0

Comments and recommendations

1987

Overall I believe that the 2 year Arch. Tech program gave us a broad overall knowledge of the Architectural Industry.

1989

I recently taught 3 classes in Arch. Tech. at Oakland Community College and was able to compare the curriculum at O.C.C. and FSU. I also was given the task at my previous job of hiring drafters. We used/hired drafters from Henry Ford Comm. College. I felt between the 3 school choices FSU is far superior in teaching/curriculum of Arch. Tech. The drafters we hired from Henry Ford were lacking many Arch/Const. Skills. After teaching at O.C.C. I also feel their curriculum does not match up to FSU. I have been very pleased with the degree I got and the advanced jobs I have had in the past and present.

1990

Ferris made it very easy to obtain entry level position within Arch/Eng firms. However, the degree I achieved at Ferris would have prohibited me from achieving a salary that would provide for a family. An associates degree is not enough and Ferris should look @ 4/5 year program.

The program @ the time I was there was great but had wished that the Bach/Master was offered. I think that if it had been there I would have continued on and became a licensed arch. Since I had to look @ transferring schools, and with losing credits, it kept getting put off. FSU would be a great place for this because of location, cost & convenience for everyone that lives in the "U.P. or west side of Michigan. I can tell you this! AT the time I graduated, I stayed for another year @ FSU and then moved out of state. Most firms didn't realize how much I knew because when they saw the degree, they compare to the local degrees of just drafting. Needless to say, they were surprised @ how much I knew.

1991

Due to the nature of the track I eventually took in my career, I'm more biased toward the technical end of this program. There is so much information that has to be learned for this field that it is hard to cram it into a program of 4 years & even harder for a two-year program. However, Architects I work with definitely lack detailing knowledge as well as cost estimating skills. It seems like their projects are always extremely over budget which creates headaches associated with redesign & addendums (which must be a nightmare for contractors). It just seems like owners are penalized (by higher bids from contractors & by redesign cost from consultants) & don't get "half" the building they were "wowed" with during preliminary design from the architect. I obviously have more an engineer's slant in my opinions, but I think architectural programs should focus less on design concepts & more on the technical knowledge of how building comes tougher design could be more of a focus at the graduate level.

I wish I had done more research into job opportunities & continued my education.

1992

It was a great program! I really enjoyed it. Things really made more sense when I could apply them at my job. Sometimes wishing I would have paid more attention.

I was very happy with my education at FSU. I feel I learned far more in 2 years at Ferris than in the 5 years I was at LTU – supposedly a well-respected school of Architecture. Curriculum and staff I feel were the strongest factors in this. Had Ferris offered a B.S. in Architecture I absolutely would have attended.

I made the decision to go into FM because I knew I was no Architect. However the option would have been nice to stay at FSU to pursue it. The A.T. program at FSU gave me a solid background in understanding the concepts and purpose that enabled me to succeed in my current position as a construction project manager.

1993

The one thing that was not offered @ the time was a development class. It should have focused on new Arch., G.C., & Engineers. All have to work together & all of the communication skills that are required to work w/groups of people. After all, it is always a team effort in this business. Reading people or the ability to is critical for individual success.

I wish I had a better understanding of building codes. If a class was created and offered I would be very interested in returning to Ferris for this class. Especially if it was offered at the Grand Rapids campus. Regarding a Bachelor or Master's degree, I'm sorry I can't support this. I do think it's a good location. However, given the really poor starting salary and the fact that many graduates don't make enough to pay for such a degree I don't urge people to go on for more education in this field.

1994

I think you better explain to students entering the program, that they better get the Bachelor's degree, and that they will find it hard to find a job in this field with just the associate's degree. Also, encourage them to work in construction during the summers, to get a better idea how materials go together. I was never exposed to construction, and was clueless to materials, and how to draw them, and how they went together.

A Bachelors & Masters program is a great idea! Wish it had been available when I was there. Just make sure not to change the program too much. A lot of BS & Masters programs focus too much on design, not enough on MPC & structural systems, CADD, contracts, codes, etc. They don't actually teach the skills graduates need to find employment after graduation. Ferris has a great core program – it just needs to be expanded to BS & Masters programs. Good Luck!

1996

I still feel very badly about my preparation in CAD because of Mr. Tulos' lack of knowledge. When I began work at General Motors, my fellow employee, also beginning the same job at the same time, spent 2 weeks teaching me AutoCAD (granted, I didn't utilize CAD at either of my previous jobs, so it had been a couple of years since I'd used it). My boss told me they hired me because I had a Facility Management degree.

1999

Thanks for sending this. My AT background is/was essential in preparing me for what I do. I am way more involved with FM now, but as you well know that means that I always use my Architecture knowledge.

I work with several FSU grads from 1950's, 1970's, 1980's as well as FSU grads from the HVAC program. Bruce Dilg as well as the rest of the staff really helped me get prepared for my career. I'ts been a great six years. I continue to be a good asset to my firm doing design, drafting, 3D modeling, meeting with vendors, job site visits, punch lists, etc.

I recommend students in the Architectural Tech. Program enroll in a "class" that takes current homes & office space in Big Rapids and redesign/works construction to enrich the community and benefit the students by getting a hands on experience.

2000

Although I chose to enter into the FM program following graduation from FM, my original plan was to complete my associates degree in AT and transfer to another school to obtain my bachelor and master's

degrees in architecture. I feel FSU would do well if they were to offer bachelor/master degrees in Architecture.

I enjoyed my two years in the program; it was very interesting and insightful. I was thankful for the opportunity as well as the segue FM class helped those undecided students determine which aspect they enjoyed more.

2001

Sorry that it has taken me so long to get this back to you. I hope my input will be of help to your study. Also, just to let you know I have just finished my Masters of Architecture @ U of M 4 years to the day after leaving FSU. AT @ FSU is a great program and I hope it continues to be. Good luck.

2002

Although there are not many residential design/CAD jobs available, I don't believe I was educated enough about residential construction. I feel that most of my classes at FSU were focused only on commercial construction. I have struggled to learn things at my job that I think I should have known after 2 years of college. With that said, the only regret that I have is not taking the 3-D AutoCAD class that was offered as an elective. When Lansing Community College finally offers the class, I will be taking it.

I would suggest going for a Bachelors of Architecture. I received a B.S. (from Alfred State College) and I felt it was a waste, well, their program anyway. Would have gone right into a B.A. if available. Tough call, but a 4-yr would be a must in any case. Thanks so much.

2003

Thanks for a great Foundation.

2004

Sorry, most of these questions probably don't apply to me since I'm still in school, I still don't know what I want to do but I know I want it to involve all of the things I learned in the AT program. I don't really know how or why I ended up there, but I believe that it was the best decision/investment I have every made! The program is a great base and it prepares student for so many career/educational paths. The professors really make the difference! I think it's a great program!

Laddering from AT to CM has been beneficial to me because I have the ability to better understand both aspects of the construction process.

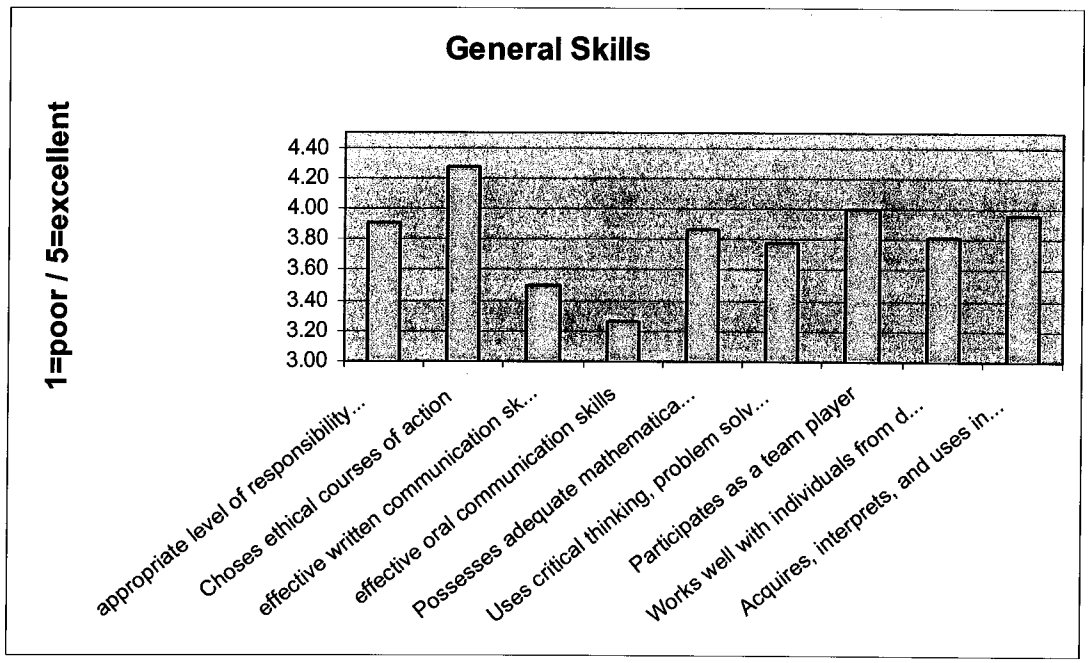
Employer Follow-up Survey

Prepared by: Mary Brayton

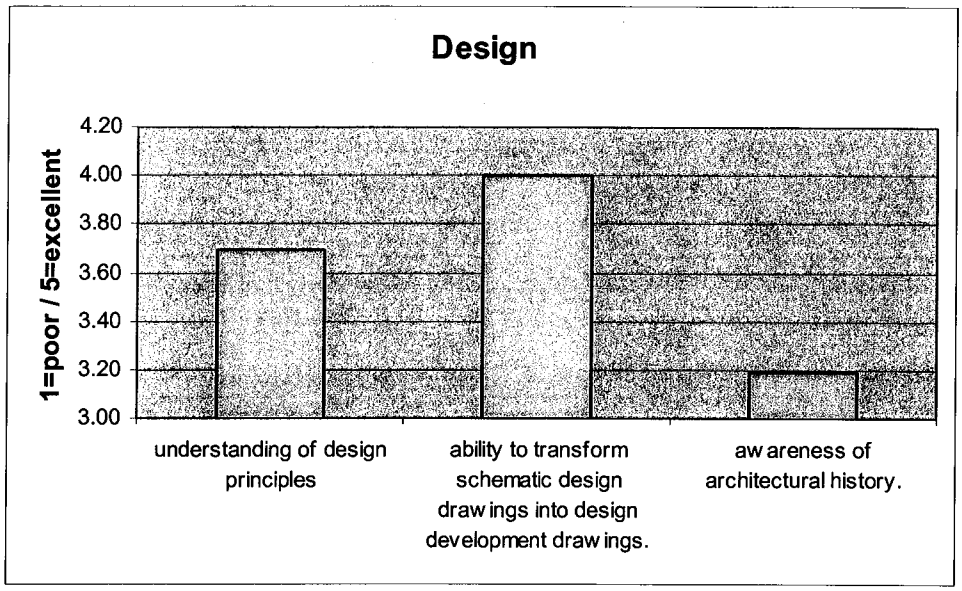
Surveys were mailed to architectural firms that had been identified as having graduates of the Architectural Technology program in their employment. These surveys were sent out by the Department Chair Diane Nagelkirk during the last weeks of the Winter '05 semester. Of 250 surveys that were mailed to architectural firms 31 surveys were not deliverable as addressed, 10 surveys were returned without being completed because either the firm no longer had alumni in their employment, or to their knowledge they had never employed a graduate of the AT program. Of the remaining total of 209 surveys, 23 surveys were completed and returned for a return rate of 11%. The following is a summary of the results.

Employers were asked to rate the overall performance of the AT graduate in the areas of General Skills, Design, Construction Documents, and Technical skills.

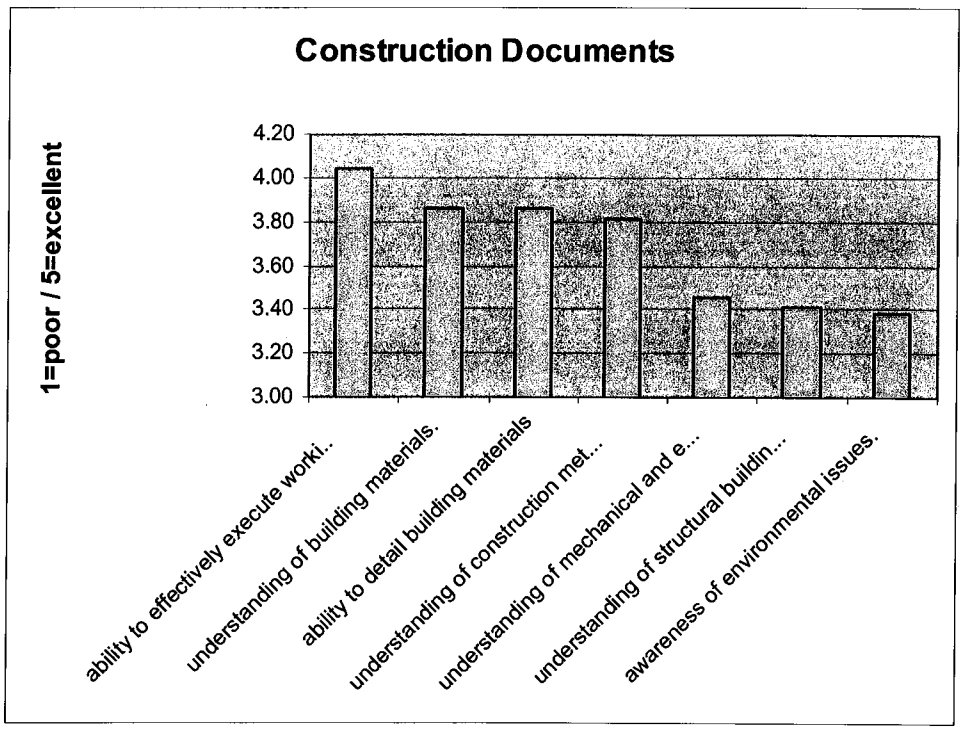
GENERAL SKILLS

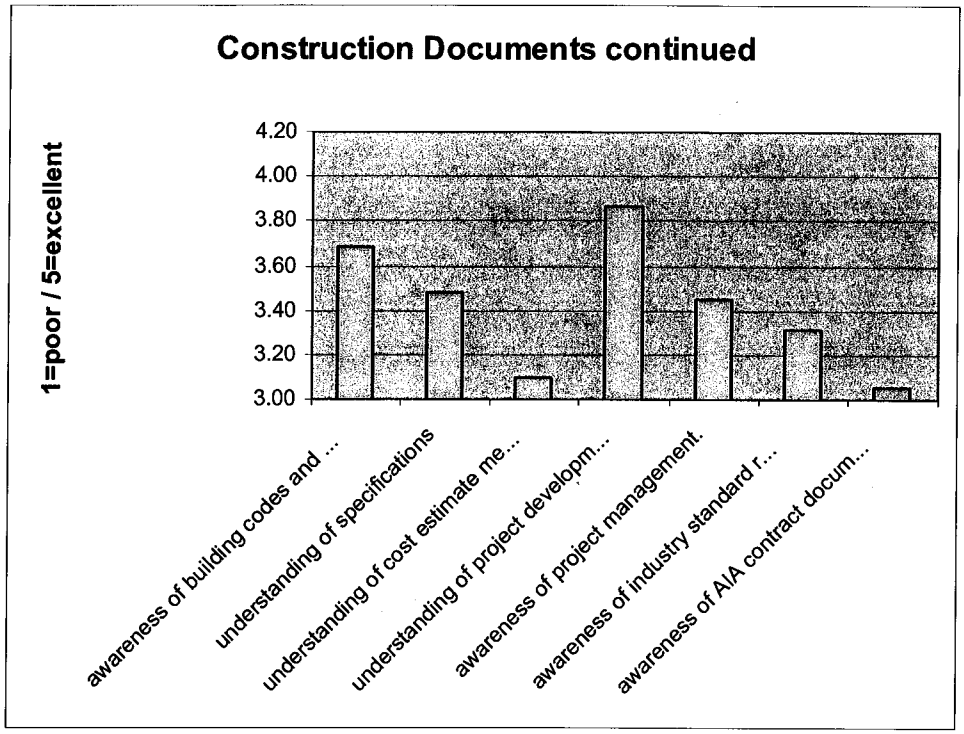


DESIGN

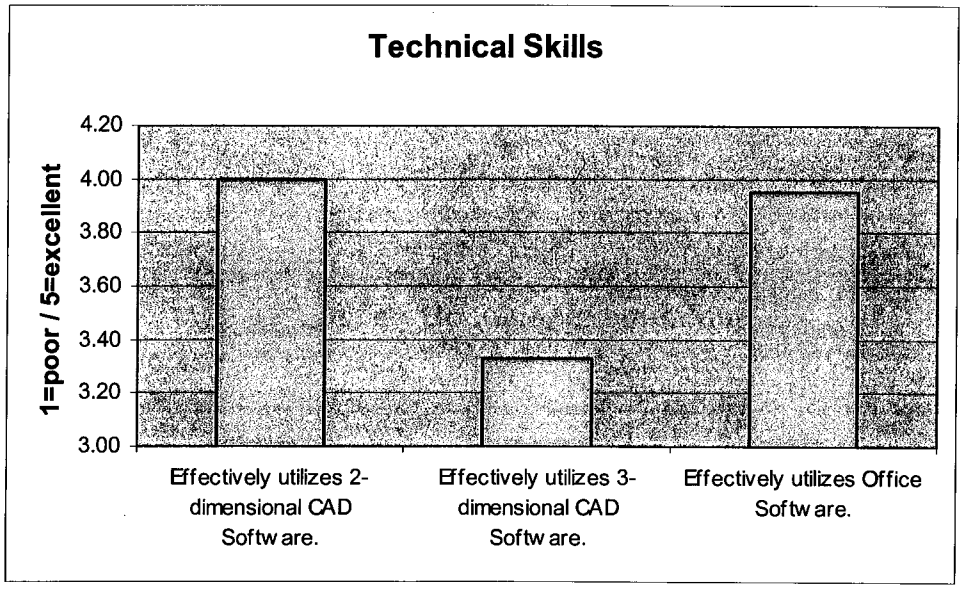


CONSTRUCTION DOCUMENTS





TECHNICAL SKILLS



EMPLOYER COMMENTS

Design skills could be more emphasized.

We have two graduates from your program currently. Both of them Senior people who graduated 20-25 years ago. I would not feel filling in this questionnaire would be of benefit to your current program. Both individuals are well rounded & very professional.

Stress more of building codes – particularly life-safety aspects in plans & use of materials. Stress on knowledge of bldg materials in terms of costs, safety & life/cycle. Use of reference books & building code books.

We have two employees w/an A.A.S. in Architectural Technology Degree from Ferris State. One graduated in 1983 and the other in 1993. Both employees went on and obtained their B.A.S. in Architecture and their Masters in Architecture. Both are also registered Architects in the State of Michigan. Not sure if this survey reflects what they have learned from Ferris State or if it indicates their experiences over the last 12 or 22 years. Both individuals are exceptional and are truly an asset to the firm.

Employee has additional degrees: Bachelor of Science, Masters – Architecture

One of your graduates, Eugene Hopkins, was the National President of the AIA (American Institute of Architects) in 2004.

Excellent employee. Architectural background with the Cadd Design was a huge plus for employment here. Excellent program.

Only experience is with a summer employee several years ago.

Overall very strong & up & coming employee.

Our Ferris grad graduated 20+ years ago. While an excellent, valued employee, there's no way I can separate the college experience from the practical experience that has shaped this employee to answer this survey in a meaningful way.

Most items marked as "3" reflects the individuals have not been asked to use this particular knowledge in their job. I'm sure there is some benefit to these abilities in other aspects of the job. Overall, we are very pleased with the quality of the individual. Keep up the good work!

Graduate Exit Survey

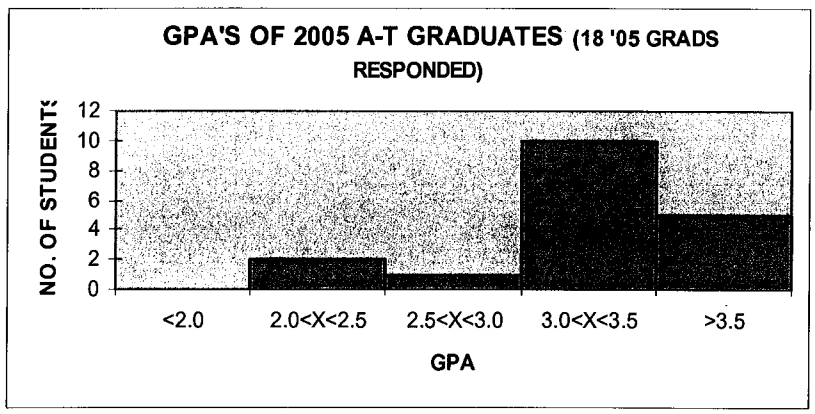
Prepared by: Joe Samson

Surveys were distributed to the faculty teaching ARCH 204, the "capstone" course by the Department Chair, Diane Nagelkirk, during the last weeks of the winter '05 Semester. Only 18 surveys out of a possible 33 were returned for Gary Gerber's section of ARCH 204. The following is a summary of the results of the survey. The questions as they appeared on the survey are listed first, followed by a summary of the responses.

The author has also made comments following the summary of responses if the results show significant difference from previous results. This is the eleventh-year the survey was done.

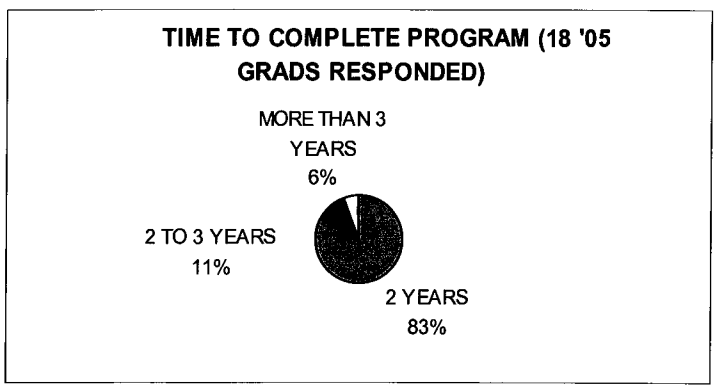
1. What is your current GPA?

This graph has typically represented a bell curve. The last three years it has been weighted toward the stronger students. However, the two years previous to that it was weighted toward the weaker students.



2. How long did it take you to get through the A-T program?

The number of students completing in 2 years has been greater for the last two years than in typical years.



Graduate Exit Survey

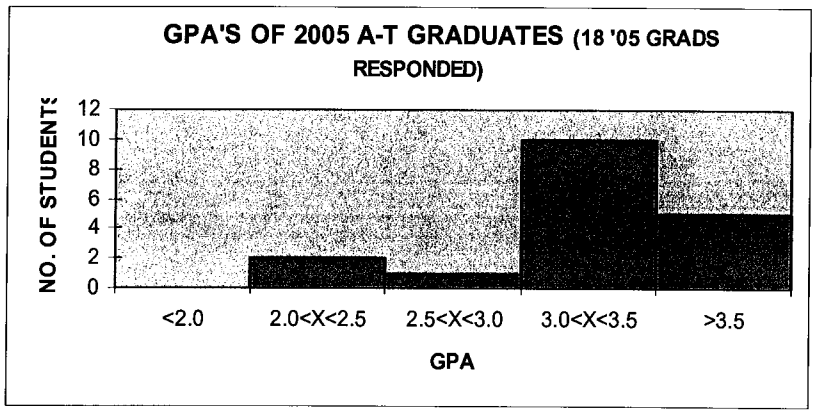
Prepared by: Joe Samson

Surveys were distributed to the faculty teaching ARCH 204, the "capstone" course by the Department Chair, Diane Nagelkirk, during the last weeks of the winter '05 Semester. Only 18 surveys out of a possible 33 were returned for Gary Gerber's section of ARCH 204. The following is a summary of the results of the survey. The questions as they appeared on the survey are listed first, followed by a summary of the responses.

The author has also made comments following the summary of responses if the results show significant difference from previous results. This is the eleventh-year the survey was done.

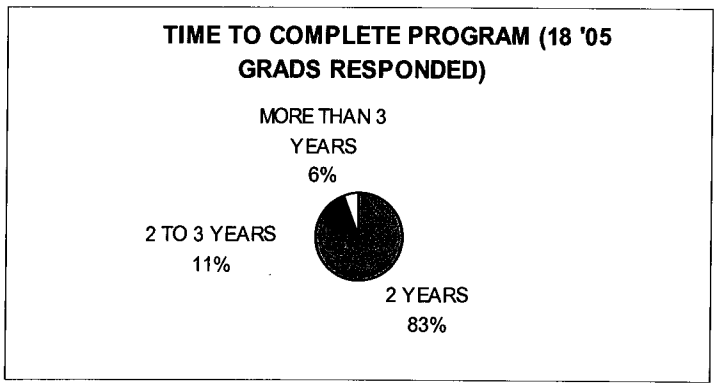
1. What is your current GPA?

This graph has typically represented a bell curve. The last three years it has been weighted toward the stronger students. However, the two years previous to that it was weighted toward the weaker students.



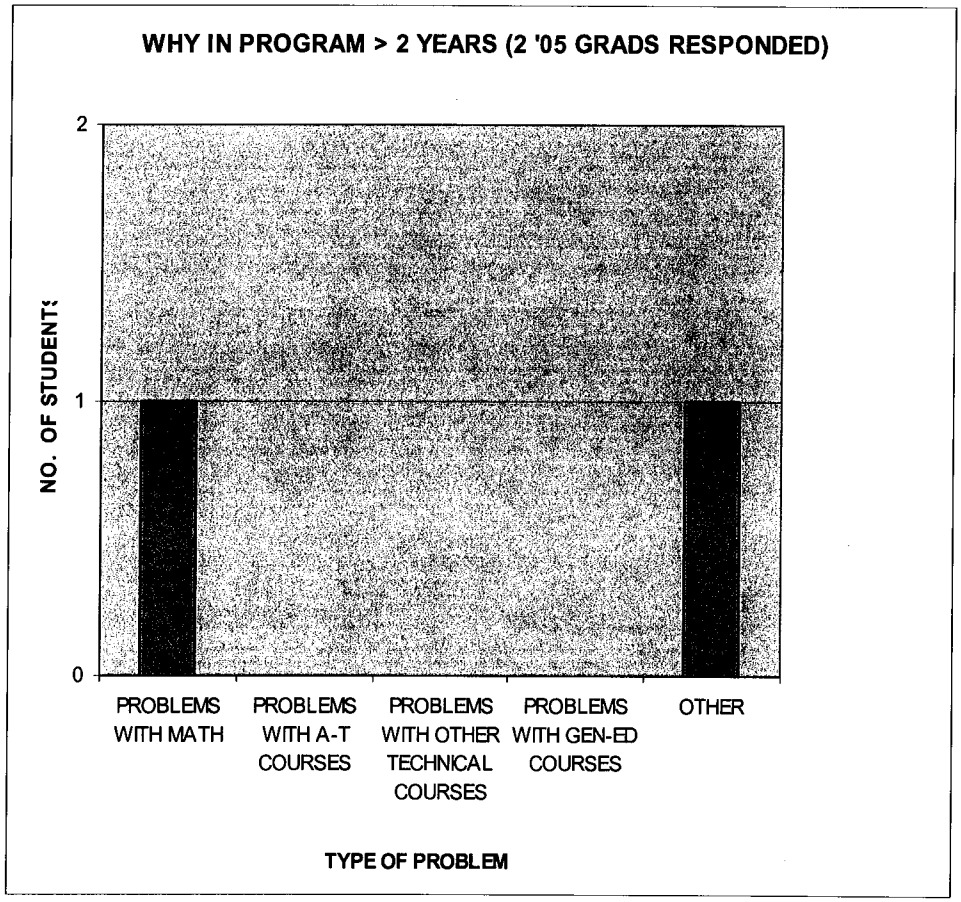
2. How long did it take you to get through the A-T program?

The number of students completing in 2 years has been greater for the last two years than in typical years.



2a. If it took you longer than 2 years, why?

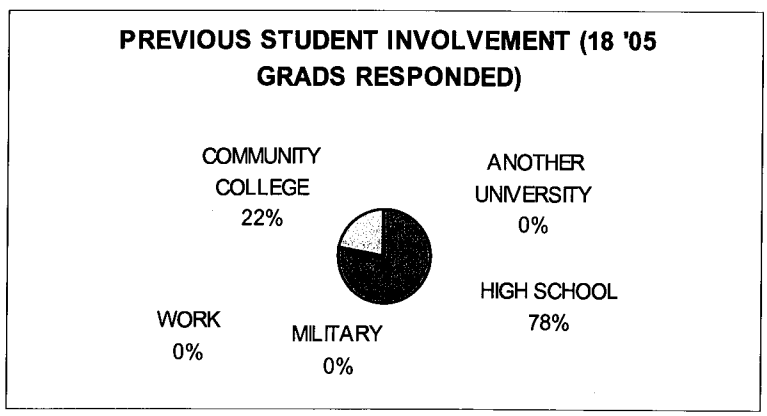
The most typical problem over the years has been with math courses. This is true this year, but to a lesser extent. The "other" response was from a student who was denied registration for academic reasons.



3. Did you come to FSU directly from high school?

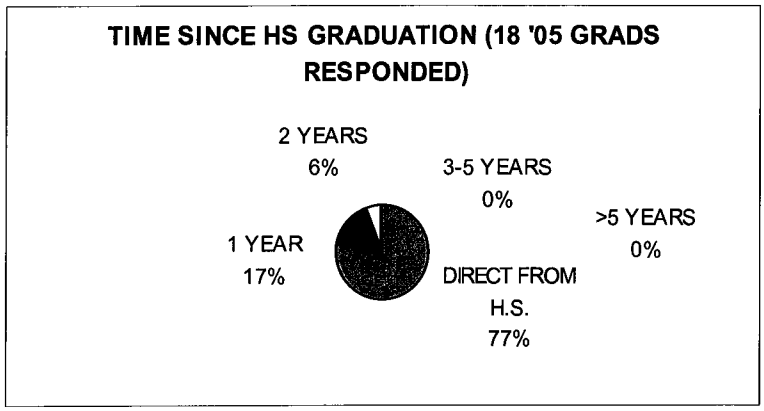
3a. If not, where did you go after high school?

More students came directly from high school with fewer from more "alternative" routes.



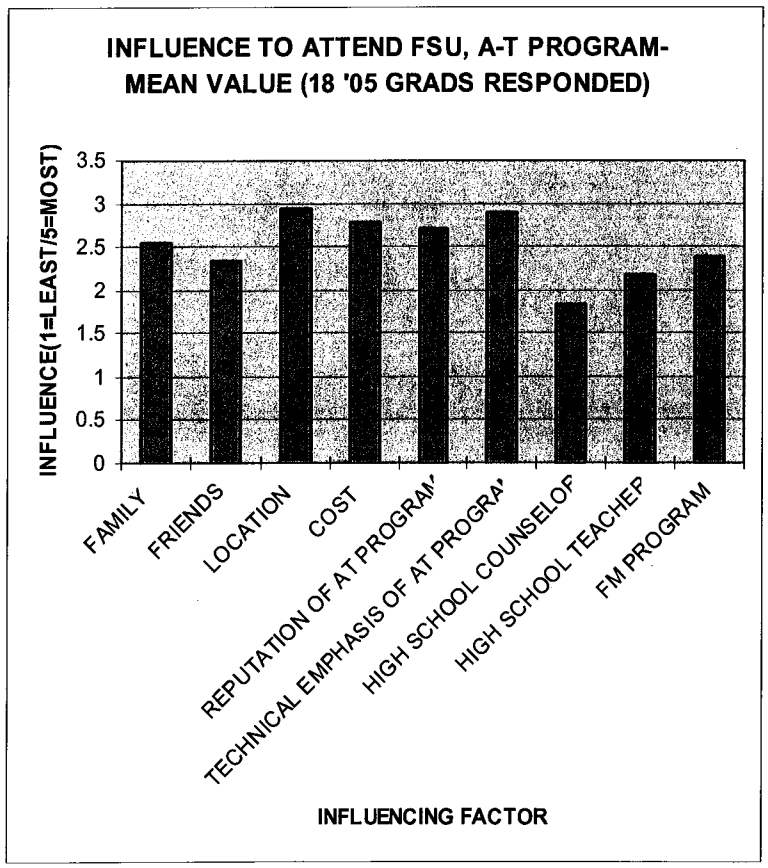
3b. If you did not come directly from high school, how long were you out of school prior to coming to FSU?

This class has fewer students who have been out of high school for a while.



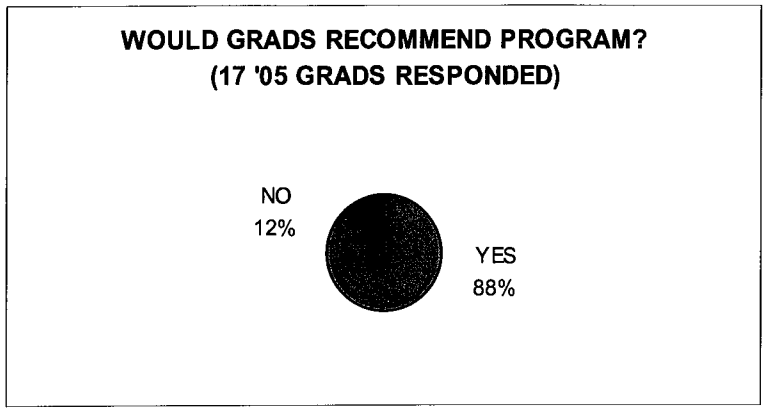
4. How influential were the following factors in your decision to attend the AT program at FSU?

First asked in '03. Similar except for more students stating that they "initially" entered the AT program to pursue a career in FM.



5. Would you recommend this program to others?

For the last three years the number of students recommending the program has increased.



5a. Why?

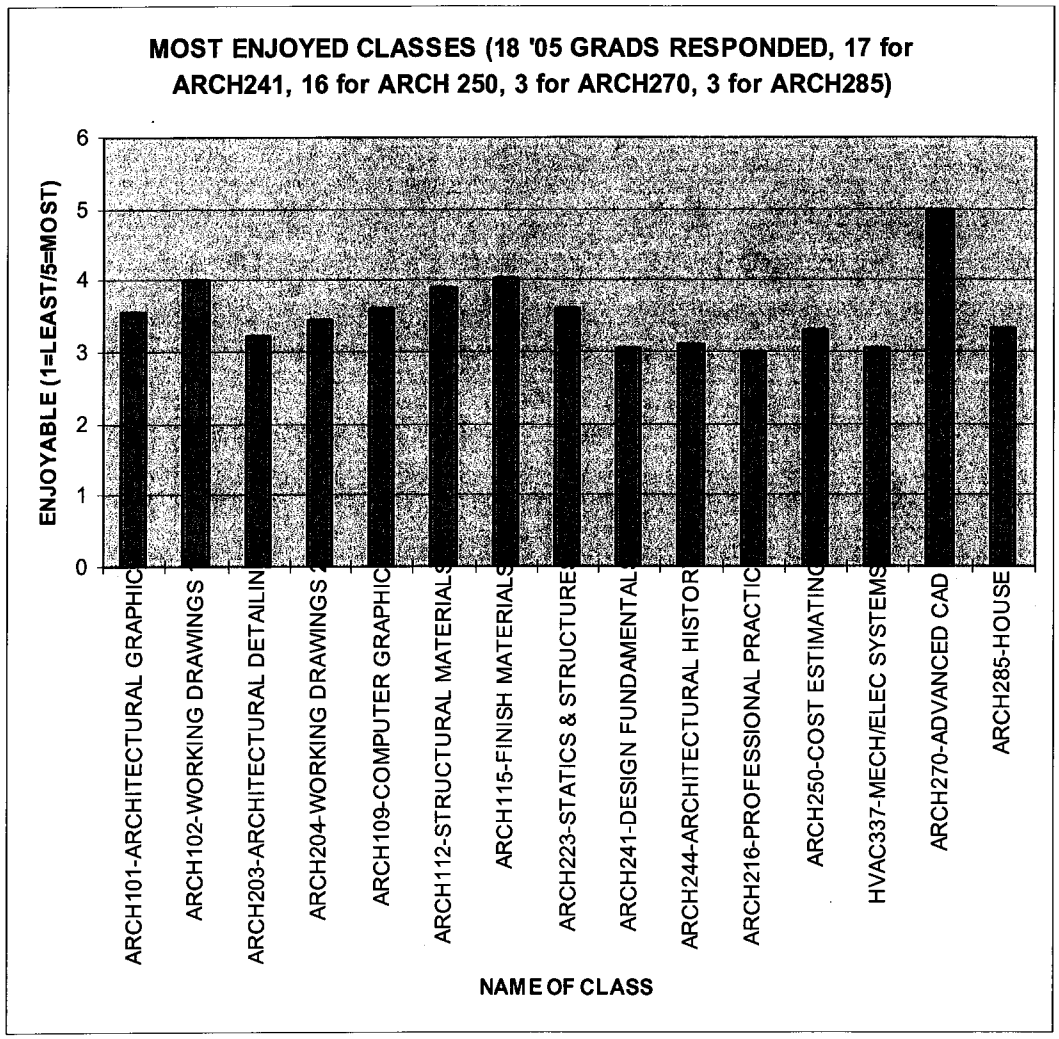
Good instructors...good teachers with exception of one...a good program for a CAD drafter...learn things that are useful in workplace-helpful in direction of architectural field...the advancement in technology moves and is moving very quickly these days and it seems the architectural "technology" program will always need people that are up to date with new materials and processes...good program...as long as they understand that they are not going to come out of here designing buildings-too many people come into the program expecting to be architects when they leave...it is a good learning experience if you apply yourself and ask questions...it is a good cheap starting program if you are not sure about architecture...knowledgeable staff with experience...it is a good program for branching into construction or facilities...because you attain great info about architecture...I have learned a lot...great CAD work.

5b. Why not?

Because the teachers here have issues...I would not want to do CAD all day for the rest of my life and wouldn't advise it to anyone else...needs to be a bigger program to be worth it-seems to be missing something.

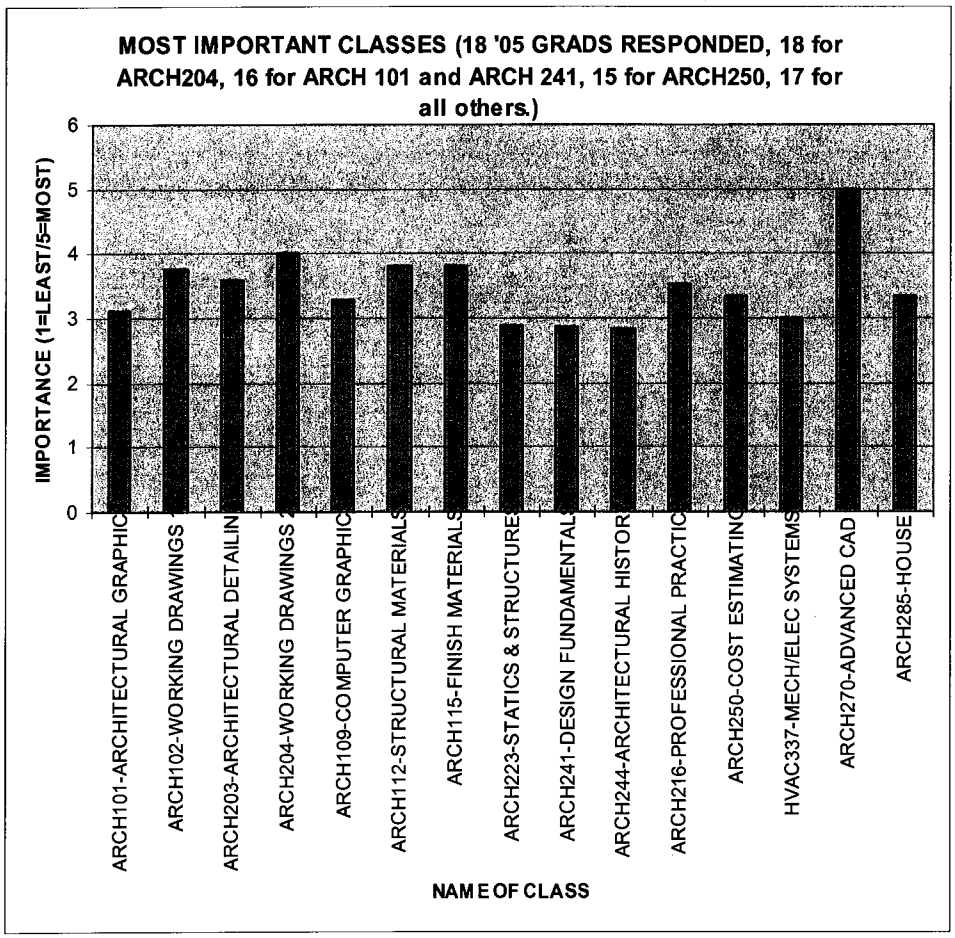
6. How satisfying were the following courses?

Students expressed significantly higher satisfaction with ARCH 115 and 250 and significantly lower satisfaction with ARCH 241, 244, and 216.



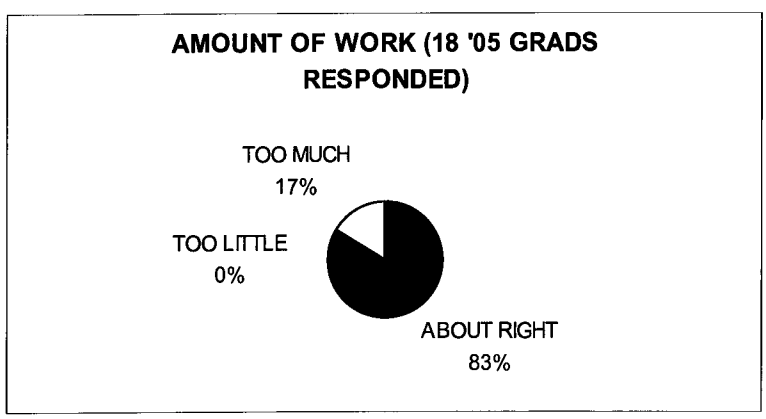
7. What courses do you believe will be the most beneficial to your future employment?

The following courses were ranked significantly lower: ARCH 101, 102, 203, 204, 109, 241, and 216. ARCH 244, 250, and HVAC 337 were ranked significantly higher.



8. Considering what you have learned in your 2 years in the AT program, do you think the amount of work required in this program is...

Consistent with past results.

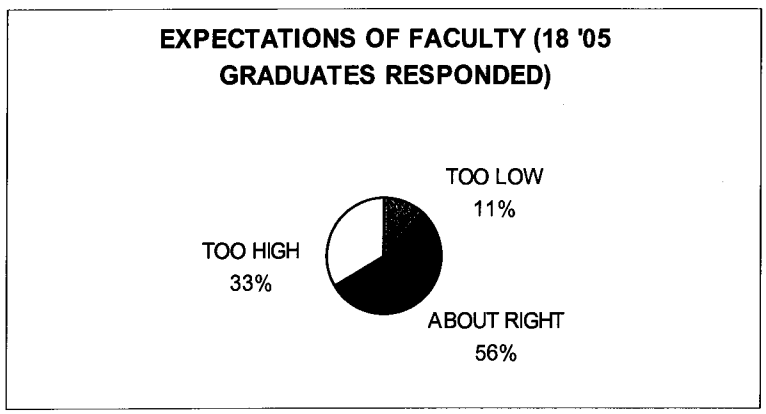


8a. If your answer to question 8 was A or B, please explain.

Assignments in 204 are not explained well and a lot more than we know how to do and the level of professionalism is too much...I spent 180 hours on one project in ARCH 204, most of which was out of class...some classes have too much work and others not enough...This is not an office. I do not have 40 hours a week for class time...

9. The educational expectations of the faculty were...

Over twice as many students said faculty expectations are too high than last year.

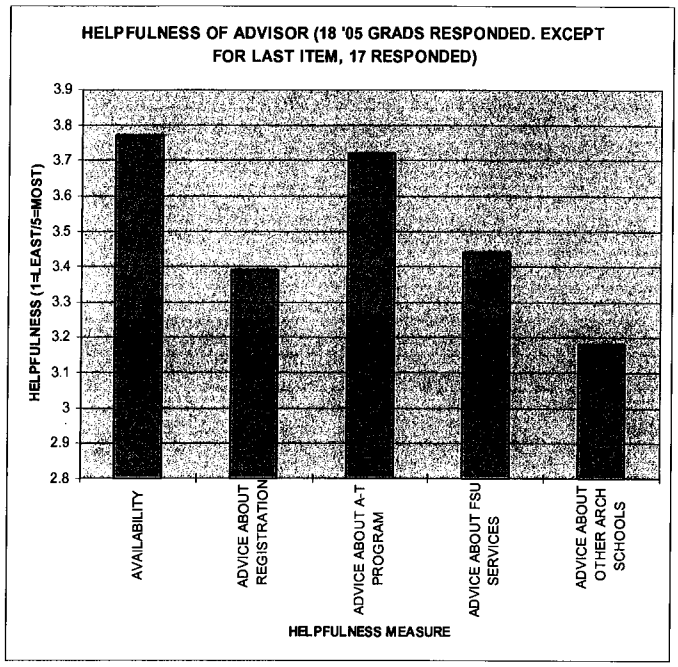


9a. If your answer to question 9 was A or B, please explain.

Some faculty need to raise their expectations on what the students are able to handle...too much time expected...some faculty have expectations of us as if we were architects. Some things they do automatically and don't think to teach us...seemed high...with the exception of Dilg, I am almost guaranteed and A. I do not think the grading in this program is realistic. I do not feel that the equality of my work is where it should be to work in a firm...they do not explain what to do sometimes, made us research and find things to know how to do things instead of "teaching"...some teachers expect projects to be due in not long enough time period.

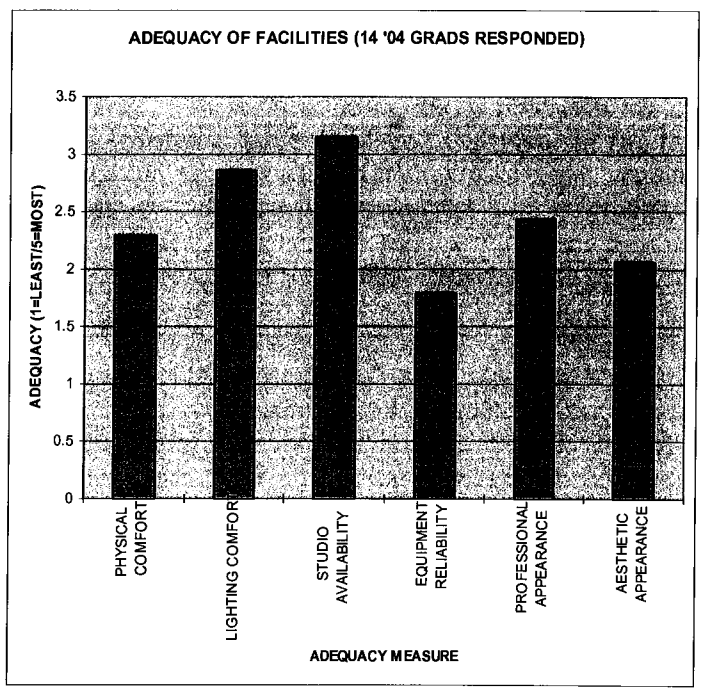
10. How helpful was your AT faculty advisor in the following areas.

This is the third year this question has been asked. Similar results, but lower for availability, registration, and info on architectural school.



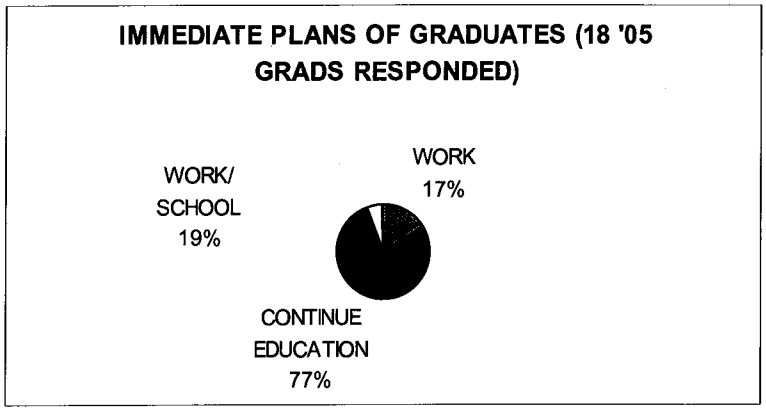
11. How adequate were the AT classroom and studio facilities in the following areas?

This is the third year this question has been asked. The results are much higher. The author believes the students are reacting to the newly renovated Swan 205 room which was used for major second year classes.



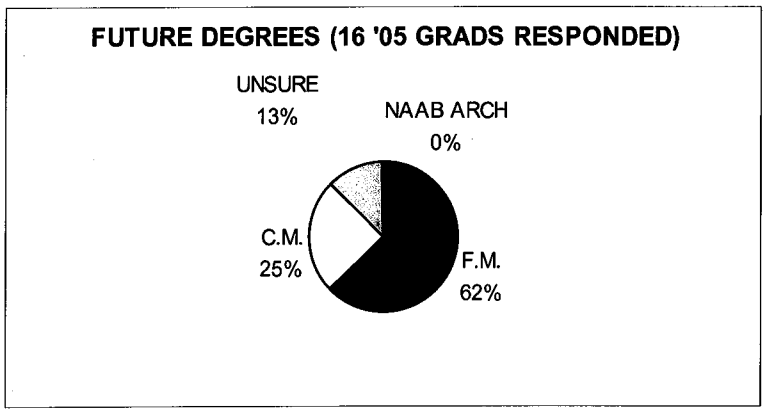
12. What are your plans upon graduation from the AT program?

The trend has been for more students to pursue further education and less to go out to work. This year more students plan to go directly to work.



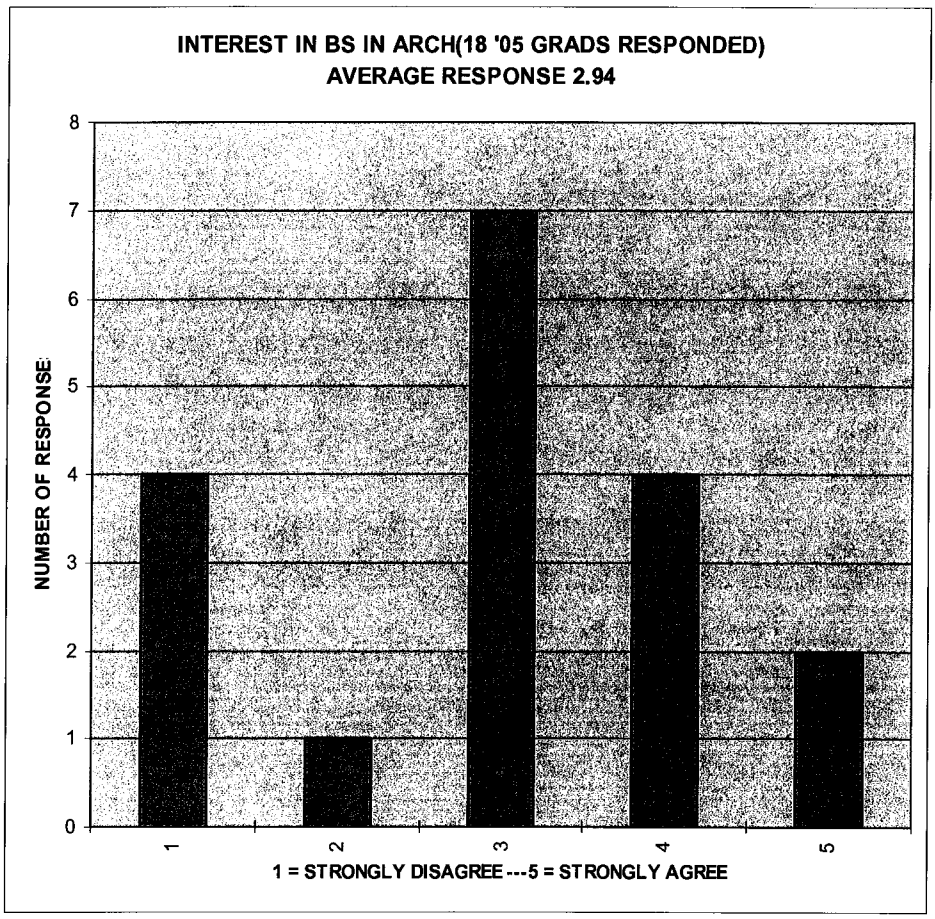
12a. If you plan to continue your education, what degree do you plan to pursue?

Future degree plans more typical of past years. 2004 had a number of students planning varied options such as interior architecture, architecture, mechanical engineering, and education. This year's students mostly plan to stay at Ferris.



13. If a Bachelor of Science in Architecture were currently available at Ferris State University I would pursue this degree.

This is the second year this question was asked. Both years the average response was about the same. However in 2004, most responses were at the extreme ends of the scale.



14. What are your professional goals for the next 5 years?

Get a job in FM...graduate from FM program and get a successful starting FM job and work my way up and hopefully work in New York...BS in FM, steady job, house, family...get a job that will pay the bills...find a friendly office setting and work and create strong relationships...complete BS in CM and work in CM...be established in my career...to do renderings for a large firm...be financially stable and possibly own my own home...will start job I love in an area I love...facility management...get BS in CM and become a project manager...finish college and start career in FM...start construction...obtain FM degree and learn enough to make a statement upon arrival to work environment...get a job in FM...graduate from FM and get hired in a large corporation with a lot going on...

15. What suggestions do you have for improving the AT program?

Reorganize classes...rebuild computers in 212...work review have less assignments to give more time for drawings in 204...instead of trying to do so many different projects, teachers should try to focus on quality instead of quantity...4 year degree, maybe a computer programming class and more professors...more FM experienced teachers-smaller construction documentation classes, students need more one on one there-some students occupy all of teacher's time...raise expectations of what students can achieve...replace Mr Gerber...get rid of Gary Gerber! Other than that, all other things were good. Maybe redo all other classrooms to look like Swan 205...keep certain teachers in their specialties vs. having them teach classes they aren't interested in...improve professors...get a BS program...don't know...get a new lab and add a class where it is hands on building...

General Comments:

I am still a happy bulldawg...too much tension among faculty-they are quick to point fingers at each other-this makes us tense...underlying tension between faculty often undermine each other. I also think a smaller class size for ARCH 204 would allow professors more time to analyze critical areas in our capstone project...tension between facility members creates an environment that is rough to succeed in. Constant undermining of work/teaching tactics creates a confusing atmosphere...

Author's Comments:

The students who were most critical of program and faculty were for the most part those with the lowest GPAs.

The things that are most important to architects are least important to these students. Doubt they know what architecture is really all about...think it is technology and building technology vs. problem solving and exploration.

In general the students do not seem willing to stretch themselves and explore on their own. They do what is asked and no more.

Architechural Technology

APRC 2005-2006

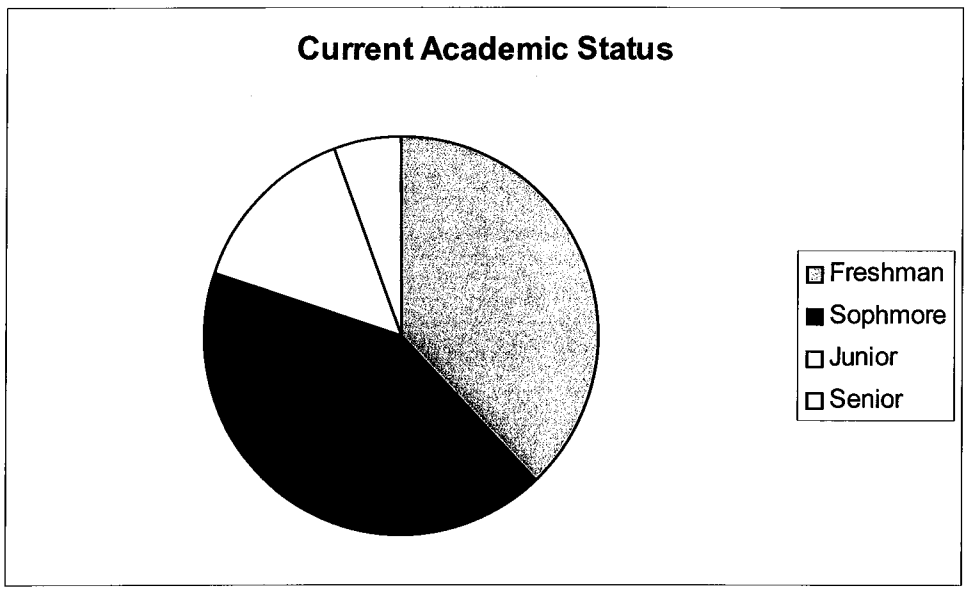
section 2 of 3

Student Program Evaluation

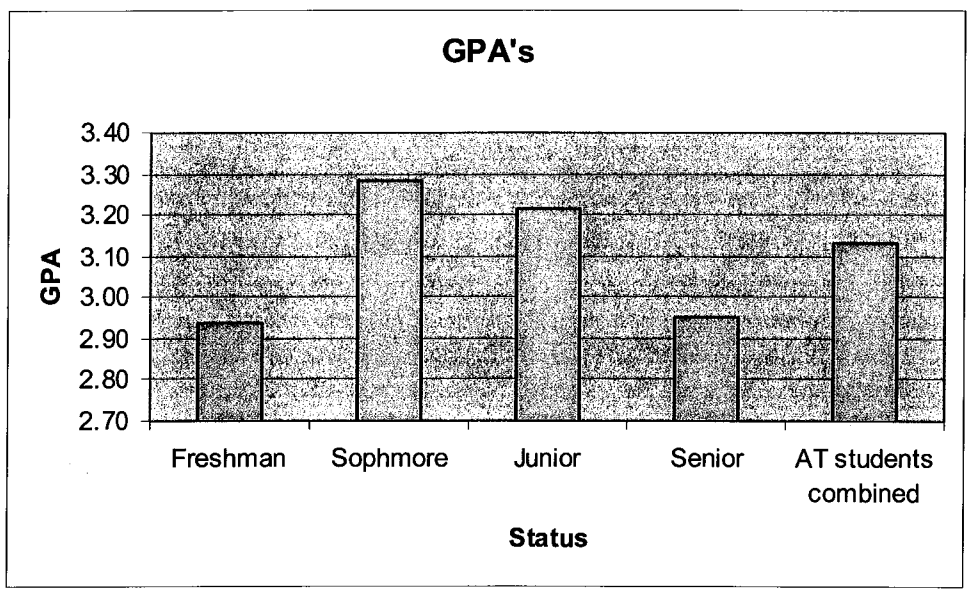
Prepared by: Mary Brayton

Surveys were distributed to the faculty teaching ARCH 102 and ARCH 204 by the Department Chair Diane Nagelkirk, during the last weeks of the winter '05 semester. 55 surveys were completed and returned. The following is a summary of the results.

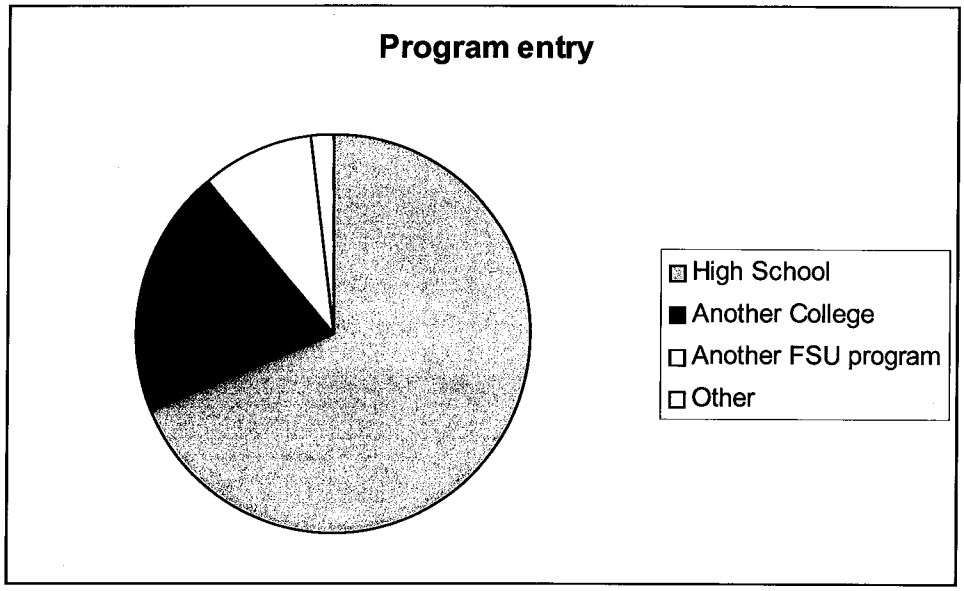
1. What is your current academic status within the AT Program?



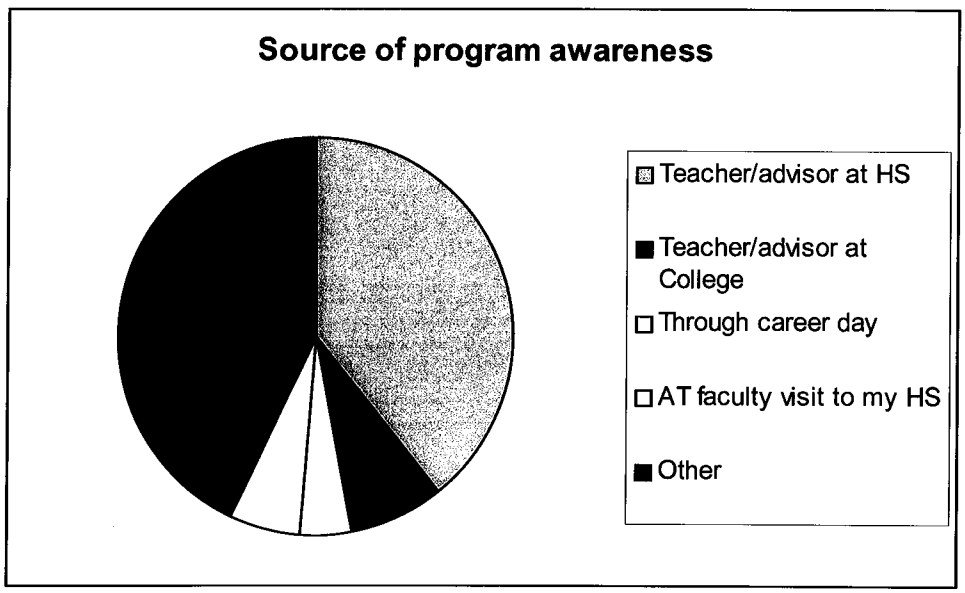
2. What is your current GPA?



3. How did you enter the AT program?

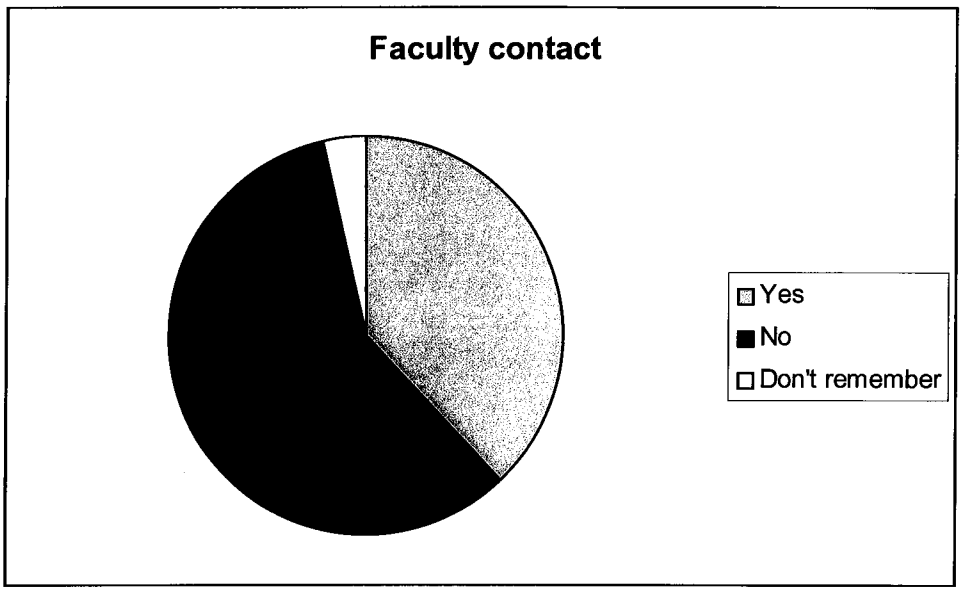


4. How did you become aware of the Architectural Technology program?



"Other" includes: personal research, found on Internet, faculty advisor, live near campus, relative/friend, job shadow, program choices and college fair.

5. Were you contacted by a program faculty member prior to first-year summer orientation?



6. What attracted you to Architectural Technology as a career choice?

Design...I would like to go through the FM program and AT is required...I always liked drawing and started taking CAD classes in high school which really got me interested...Thought I wanted to be an architect...Architecture itself...The Field...I was interested in architecture, looked interesting...Building...Construction...Being creative...Like to Design...I enjoy to draw, and I am interested in Architecture...B/c I like Architecture...I like it...Construction...Was looking for a stepping stone into Architecture...2 year program w/ associates...I like architecture...High school teacher...Reputation...I was questioning the possibility of becoming a architect so chose Ferris as a beginning option...Creative possibilities...I enjoyed drafting in high school...Heard it was a good program...I came to FSU with my mom and we spoke with Prof. Dilg. The conversation we had made me desire to attend this program. He passed his passion down...It was something I wanted to try and I was unsure of loans...Fast, in and out of school. Dad is a builder...The design aspect...I love buildings and how they looked. I am very hands on...I wanted to see if architecture was a career choice that I wanted, without committing to a 4 or 5-year program...Choices of degrees after AT program...In the 7th grade, my technology education class got the opportunity to experiment with creating floor plans by creating shapes and dragging in furniture items. I was hooked...Designing something on paper knowing that it will produce a 3-D structure...I like drafting...I liked working with CAD in high school...I had 3 CAD drafting classes in high school and I enjoyed them...CAD in High School...Knowing the construction industry is a passion of mine, linking business w/construction...High school...The option to go into multiple college programs from here...I am an artist...Interest in CAD and Architecture...I wanted to learn

about designing buildings...Ferris was easy to get into and I needed a stepping stone degree to get to my next university...FM...The FM program...Blueprint experience, CADD/design...I like the creativity and hand-on work...Art + drawing + houses/design...I was interested in becoming an Architect...Nothing really. Thought there was a lotta $ involved. I like to draw as well. I was disappointed either way...Always liked to design houses and draw

7. Why did you choose FSU over other universities or colleges?

Better Architecture program...Because of the cost and the Arch. Tech. And Fac. Mg. Programs...I wanted to move away from home for my first couple of years...Closest to home...Sports, Family in MI...2 year program...It was the only one that I saw that had an Architecture program, while being at a University in case I wanted to change majors...Cheaper...Offered program...Because I hear it was a good school...Closer to home, less $...Distance, cheaper...Because it was close to GR...Close to home...It was closer to home...Further from home...I didn't want to go straight into the Master's program @ Lawrence...Not many schools offer program and I can play football...Location and cost...Cost...Location, cost, reputation...Its close enough to home and I liked the option of a two-year program...It was close...Distance from home, academic program...Cheaper...Fast, in and out of school. No student teachers. Teachers are experienced in field...It was close...Friends, cost compared to other Arch. Colleges...The program...Cheaper and closer to home...Several of the professors are licensed, currently practicing architecture so I know I'd receive classroom knowledge as well as information on how that knowledge is used in the real world...Convenience...It was cheap and close to home...A lot of my friends were coming here...The price compared to other in State schools with architecture programs...Close to home, small hands on learning...Location...Costs and variety of paths after first two years...I heard good things...Family went here before...Costs...I was already here and wanted to stay...I didn't make an effort to go to other universities at first...AT program...One of five FM programs...The FM program...A more direct approach to my goals...Because of FM...Close to home...Small classes, location, and did not receive acceptance letter from U of M until September...It was much cheaper...Friends came here. Optometry was here. Was hoping girls were here. Wanted to get outta it, not sure why I came to MI though. I do like to snowboard...I was accepted

8. Are you satisfied with your decision to attend FSU?

Yes, why:

I have learned a lot in my program and have gotten to experience "College life"...I like it here...what I expected...Good program...because I think I have learned a lot about what I am good at...Quality education...because the teachers are very good...convenient, cheap, lots of resources...Had a lot of fun...so-so...it gave me a look at what it's really like...gave me an idea of what to expect after the 2 years w/various options of where to go next...I like it...because it's a great program that interest me with good teachers who care about the students and their interests...enjoy the campus...Gave me a good background for Construction

Management...it's a university but it's not huge...it has been a great experience...FSU has changed my life especially real life Campus Ministries...because I am not sure if this is what I want to do for the rest of my life, so I'm glad I didn't go to Lawrence Tech & waste all that $...learned what I wanted to...I learned a lot...Been a great time, good teachers...I found out that Facilities Management is a passion...I want to attend their FM course...the university goes out of its way to give students access to technology and make life in general a little easier...I learned a lot...because there is a greater chance to succeed here due to the small class size...active participation = good learning (easy to do @ FSU)...learned a lot...because of the FM program...I have learned new possibilities...It's a good school, not so big that you get lost in the crowd, and not so small that you know everyone...I am going to come away with a degree and I got to grow and expand my character...I think I found something I like (FM)...not sure what MSU would have been like for their CM program...great school...b/c I feel that FSU has better educated me in the field, however I would make some changes...I've seen progress, and was able to create good relationships w/peers...I have moved into FM and have acquired a job in that field...nice campus, too far from home though. The Internet connection here is horrible though, huge disappointment...have had a lot of fun and have many friends in and outside of class, also my fraternity: Sigma Phi Epsilon

No, why not:

I think gen ed classes should all be taken first, before we start applying it to Architecture...Because the program did not meet my expectations...Dorms suck. Classes take lots and lots of time...Credits don't transfer, ugly campus...Big Rapids is boring

9. Are you satisfied with your decision to study Architectural Technology?

Yes, why:

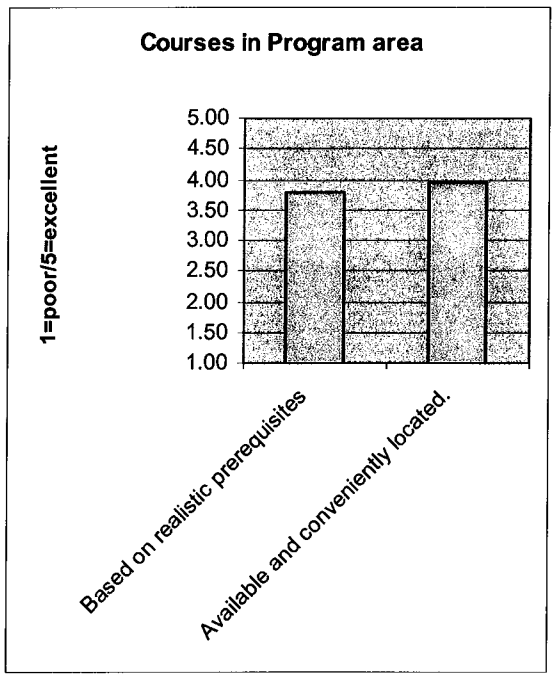
Because I have always been interested in it and the more I learn, the more interested I am...what I wanted...I enjoy Architecture...learning a lot...I know it is what I want to do with my life...like drawing on CAD...b/c I like Architecture...I love Architecture...for the most part because its interesting...its fun...Gave me a good background for Construction Management...I've learned and am continuing to learn so much...it taught me a lot....this program has taught me so much and I am now well equipped to work...Good basics. Available to go into many other fields...it will be a good base for facilities management...just the thing for me...I enjoyed the background of Architecture and the knowledge I gained throughout the program...Gave me a good base for FM...I've wanted to become an architect since the 7th grade...because it will give me more exposure of the construction process to empathize w/others once I am out in the market looking for a job...I enjoy it...because it has led me to FM...to move on to FM...great background for CM...helped me make my decision to go into FM...I've learned a lot about the subject...I learned a lot about what goes into designing a building...I always loved Architecture and now I have an even better grasp of the profession...good to know, wouldn't want to do it for life though...(Kinda), last semester has been kinda weak...help out with FM...b/c it has taught me a lot about building construction...I love to draw and beauty of a well designed house/bldg...It has helped me move into FM smoothly...its an interesting subject area and I'm glad I've learned what I have, but its just not for me...it has taught me a lot about buildings and technology

No, why not:

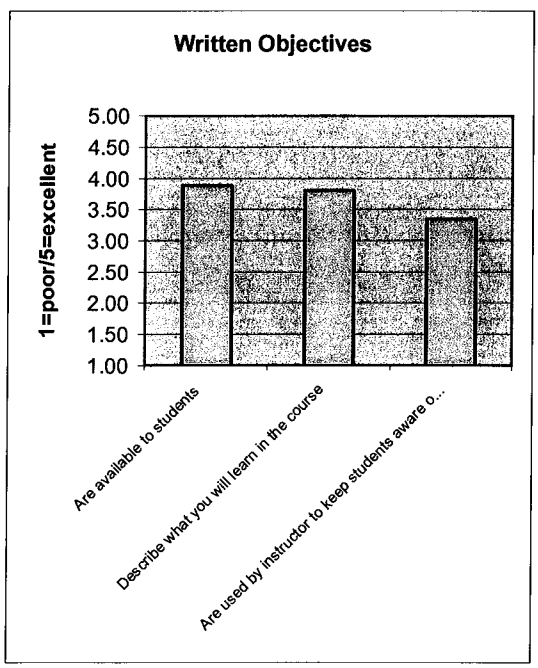
it is not my true interest...Not what I want to do...I wish the professors were better...I learned not to enjoy it... Some courses are poorly organized and lack syllabi's...because I don't think it is the right program for me, I am glad however that I took it because I learned a lot about myself.

PROGRAM INFORMATION

COURSES IN YOUR PROGRAM AREA ARE:
10. Based on realistic prerequisites.
11. Available and conveniently located.

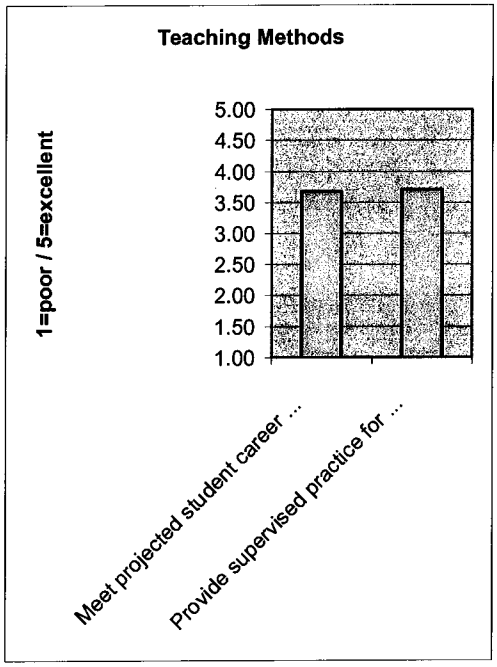


WRITTEN OBJECTIVES FOR COURSES IN YOUR PROGRAM:
12. Are available to students.
13. Describe what you will learn in the course.
14. Are used by instructor to keep students aware of their progress.



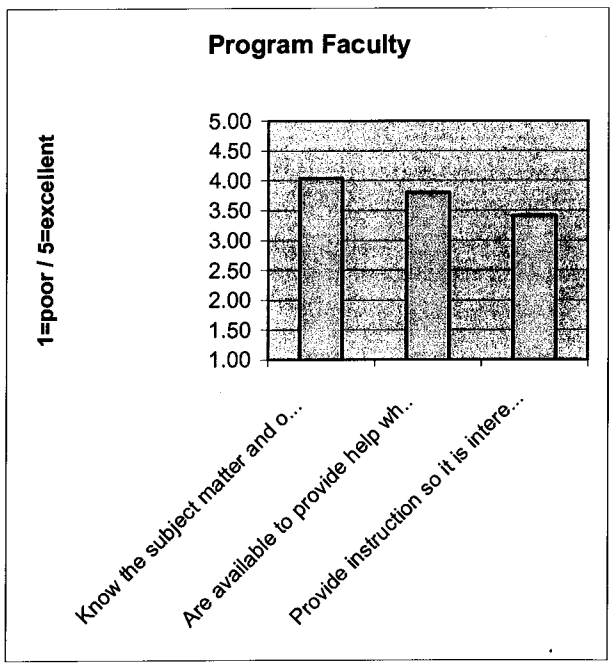
TEACHING METHODS, PROCEDURES, AND COURSE CONTENT:

15. Meet projected student career needs, interests, and objectives.
16. Provide supervised practice for developing skills.



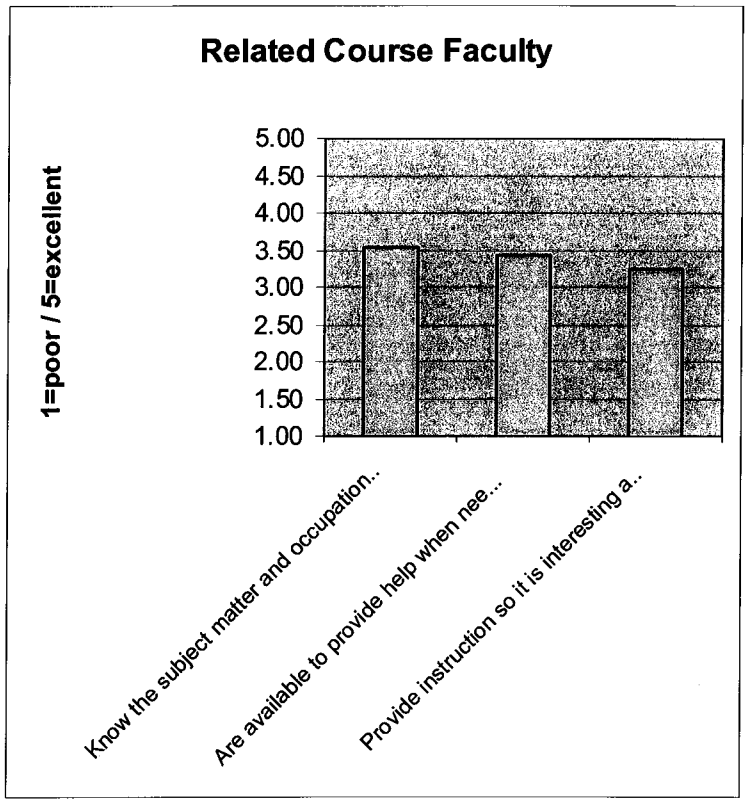
PROGRAM FACULTY:

17. Know the subject matter and occupational requirements.
18. Are available to provide help when needed.
19. Provide instruction so it is interesting and understandable.



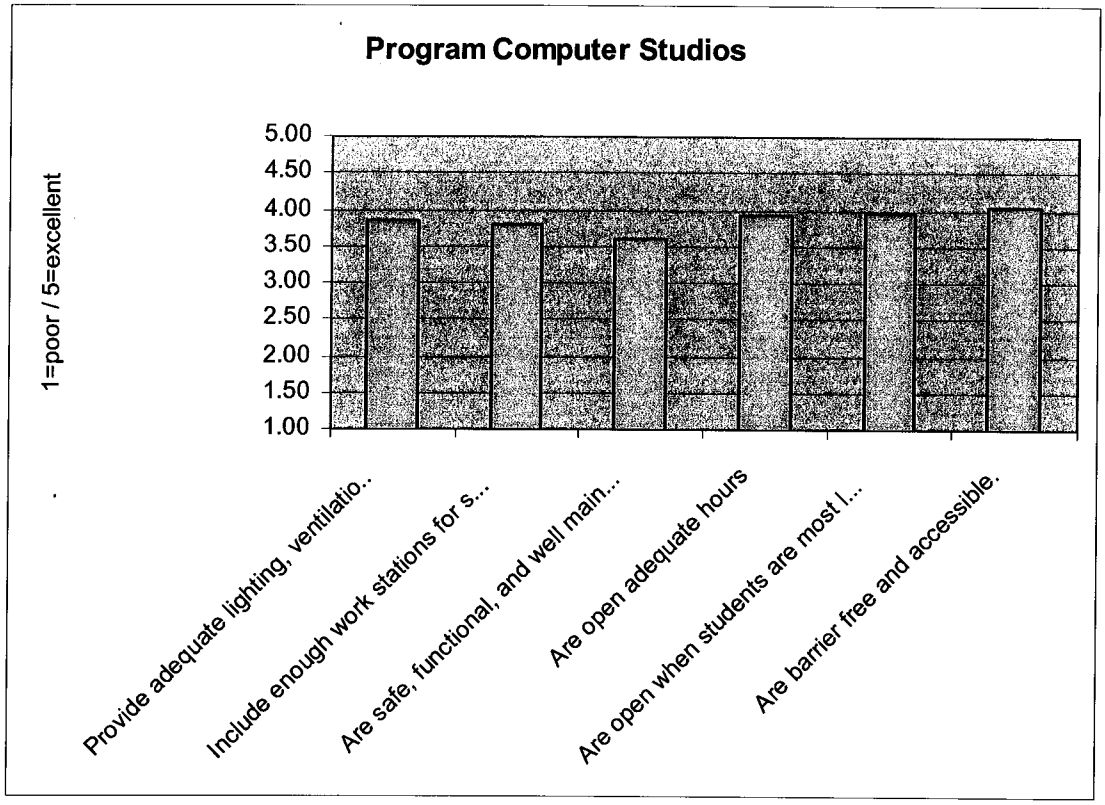
RELATED COURSE FACULTY

20. Know the subject matter and occupational requirements.
21. Are available to provide help when needed.
22. Provide instruction so it is interesting and understandable.



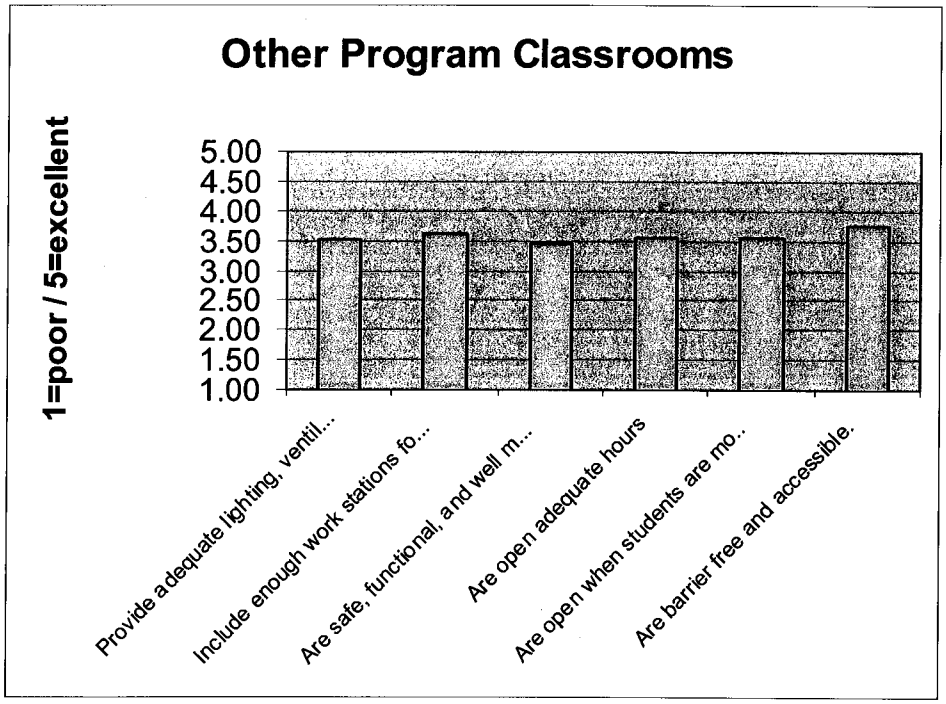
PROGRAM COMPUTER STUDIOS:

23. Provide adequate lighting, ventilation, etc.
24. Include enough work stations for students enrolled in courses.
25. Are safe, functional, and well maintained
26. Are open adequate hours
27. Are open when students are most likely to use them.
28. Are barrier free and accessible.



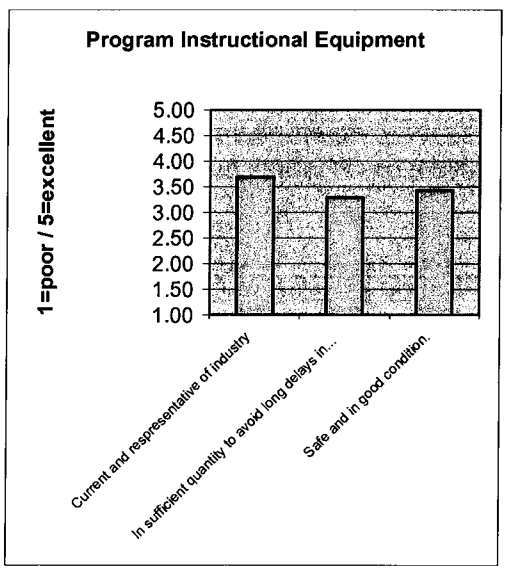
OTHER PROGRAM CLASSROOMS:

29. Provide adequate lighting, ventilation, etc.
30. Include enough work stations for students enrolled in courses.
31. Are safe, functional, and well maintained
32. Are open adequate hours
33. Are open when students are most likely to use them.
34. Are barrier free and accessible.



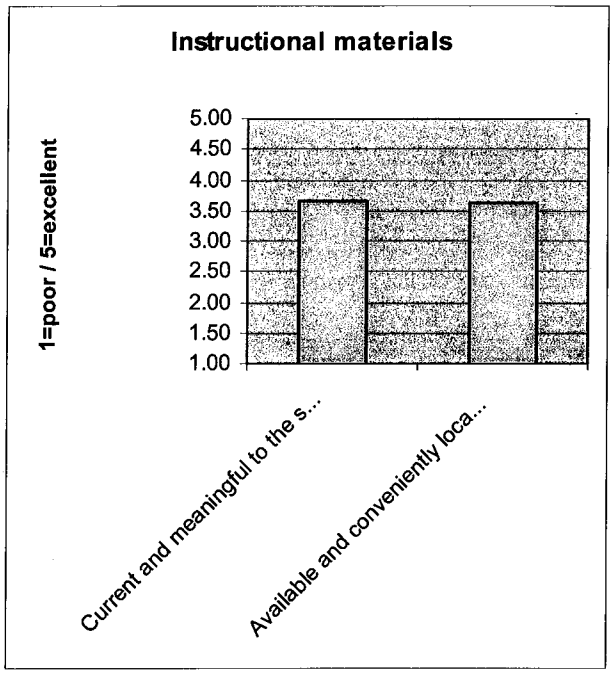
PROGRAM INSTRUCTIONAL EQUIPMENT IS:

35. Current and representative of industry
36. In sufficient quantity to avoid long delays in use.
37. Safe and in good condition.



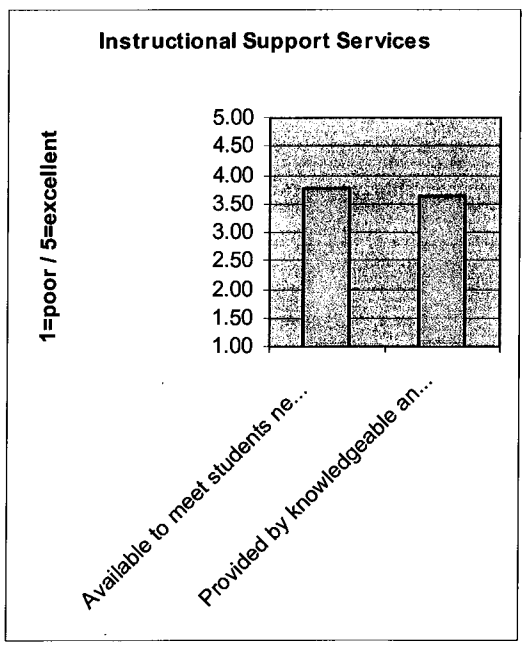
INSTRUCTIONAL MATERIALS ARE:

38. Current and meaningful to the subject
39. Available and conveniently located for use

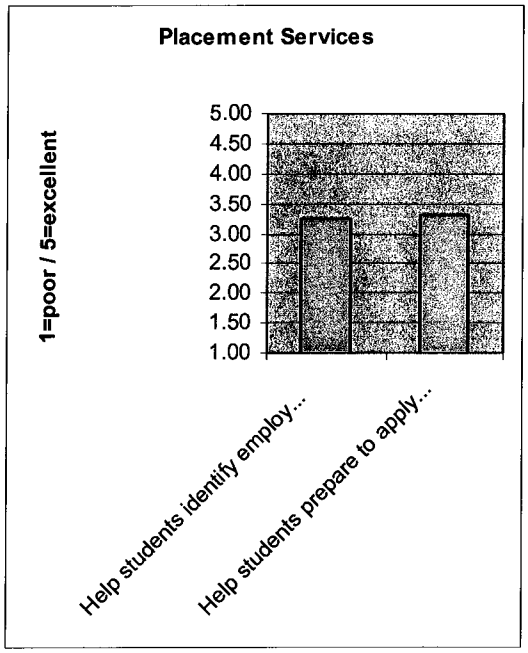


INSTRUCTIONAL SUPPORT SERVICES ARE:

40. Available to meet student needs and interests.
41. Provided by knowledgeable and interested staff.

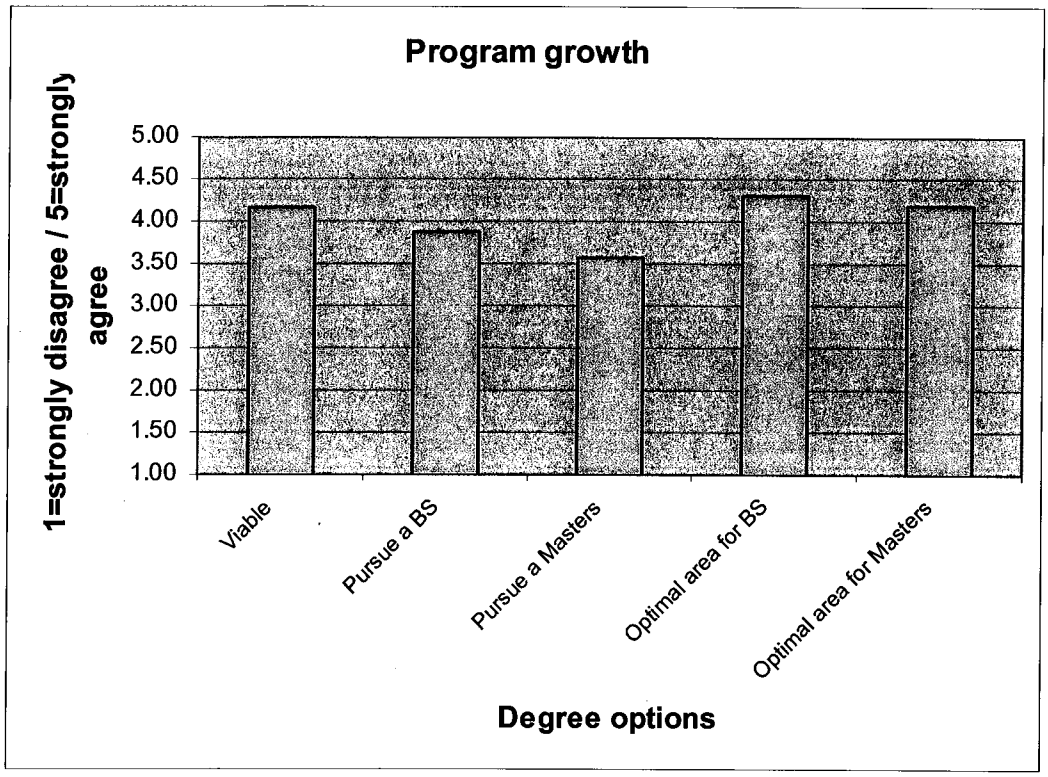


PLACEMENT SERVICES ARE AVAILABLE TO:
42. Help students identify employment opportunities
43. Help students prepare to apply for job applications.



PROGRAM GROWTH

44. I believe advanced degrees in Architecture at Ferris are a viable concept.
45. I would have pursued a Bachelor of Science in Architecture had the degree been offered during my tenure at Ferris.
46. I would have pursued a Master of Architecture had the degree been offered during my tenure at Ferris.
47. The Western Michigan area is an optimal location for a new Architecture program offering a Bachelor of Science in Architecture.
48. The Western Michigan area is an optimal location for a new Architecture program offering a Masters of Architecture.



Comments and recommendations:

Freshman comments

The one computer room that first year students have classes in is out dated. The computers are slow, the keyboards and mice don't work sometimes which makes it difficult to get work done... Updated computers... New computers that are faster and up-to-date would be appreciated.

Sophomore comments

Bruce Dilg lately is getting criticized by students and faculty, but I feel he is the best professor in the program. Of course you work hard, but he gets you to think about building buildings, and gives you work experience w/guidance... Gary Gerber may be a great architect and a nice person, but I have learned very little in the two classes he taught me. He's not a very good teacher, and he reads the book to us, and we get out of class a half an hour early all the time, what am I paying for... The Physics program is terrible, I was taught nothing all semester. Lectures were poor, the text book (instructor written) was terrible, the whole thing was a joke... A bachelor of Science in Arch was what I was actually looking for, but I am going into FM. BA of Science for arch would be a great idea for the future because there are not many with a reasonable price such as Ferris... I recommend the negative complaints that have come as of late of Prof. Dilg be taken with a grain of sand. Prof. Dilg is by far the best teacher in the program. He is passionate about what he does and tries in every way to teach for understanding. Everyday he challenges students to think about the questions they ask. He teaches you how to build buildings. Mr. Dilg makes you work, as college professors should. You will by no means get by with minimum quality work. Prof. Dilg takes into account that this program is to prepare you for the work force. Those who have complained usually have not taken him for more than Professional Practice and have a skewed view of him. Profession practice focuses heavily on business which, for most architects (students), is the least of their concerns. Thus many students complain even though this class is necessary! I believe if any action is taken against Prof. Dilg you will be making a HUGE mistake! Professor Gerber on the other hand has left less than desired results in my education. I have been very disappointed in his techniques as an educator. I have been allowed to get by with less than 'good" work and still get high grades. I feel he has not instilled the skills in estimating especially that may be required of me in the job force. Mr. Gerber does not challenge me to work hard. Usually not well prepared for class. I am sure he does great work as an architect, but as a professor I am not pleased. Prof. Samson and Prof. Brayton have taught me a lot and I have enjoyed their classes and feel I have been challenged and learned a lot from their teaching techniques. Overall, I have learned so much from this program. I have seen the value and agree with the class selection needed to complete the degree. I do however see the need for future expansion as the industry continues to change... Include a hands-on Construction Practice class as core class. Provide a large enough table used specifically for sets of drawings to reference off from.

Junior comments

Need some business courses in program... Get another new lab with decent computers... Advance the Facility Management Program and optimize on the possibilities of what it could be. It very easily could be an incredible opportunity for FSU and the students involved. Also, the West side of Michigan needs an Architecture Program! Why not be the first to do it?

Senior comments

Teachers are good for all programs but classes are way too boring. It is sometimes difficult to stay awake in particular classes and I also feel that certain classes are pointless and a waster of my time, like MGMT 301 for instance. The Internet connection here at Ferris is inadequate when compared to today's technology. A huge upgrade should be in Ferris' near future. Otherwise, Ferris will continue to lose students due to poor technological advancement. I know of many students who are leaving Ferris due to this internet problem. I am one of them.

Faculty Perceptions

Prepared by: Bruce Dilg

Advisory Committee Perceptions

Prepared by: Bruce Dilg

ARCHITECTURAL ADVISORY BOA' SURVEY APRIL 2005

	QUE.:ION											MEAN	MEDIAN	RANGE	STAN .EV
1	Overall the AT program meets the current needs of the profession.	4	4	3	4	5	5	4	4	4	3	4.000	4.000	3 5	0.666666667
2	Projected trends of the profession indicate that the current AT program will	4	2	3	NA	4	5	3	4	4	3	3.556	4.000	2 5	0.881917104
	continue to meet the needs or the profession.														
3	Demand for graduates of this program are as strong as they were 10 years ago.	4	4	2	4	5	4	4	3	4	5	3.900	4.000	2 5	0.875595036
4	Program content is based on performance objectives required for successful entry level employment.	4	3	4	5	5	5	3	5	4	NA	4.222	4.000	3 5	0.833333333
5	Program content is responsive and revised to keep current with changing job practices.	4	2	3	3	5	5	3	4	4	3	3.600	3.500	2 5	0.966091783
6	The program provides an adequate number of graduates to meet the needs of the profession.	3	2	1	2	3	3	2	NA	4	2	2.444	2.000	1 4	0.881917104
7	The graduates of the program are properly prepared to go to work.	5	4	4	5	5	5	4	4	5	2	4.300	4.500	2 5	0.948683298
8	Graduates of the AT program are highly regarded.	5	4	5	4	5	5	4	4	NA	4	4.444	4.000	4 5	0.527046277
9	Graduates of the AT program are competitive with graduates of similar programs from other colleges.	5	NA	5	NA	5	5	NA	5	NA	4	4.833	5.000	4 5	0.40824829
10	Graduates of the AT program possess the necessary skill base for future needs of the profession.	5	2	4	4	4	5	2	3	4	4	3.700	4.000	2 5	1.059349905
11	Program faculty have adequate academic credentials.	4	4	4	4	5	5	2	4	4	5	4.100	4.000	2 5	0.875595036
12	Program faculty have adequate professional credentials.	4	NA	4	4	4	5	4	5	4	5	4.333	4.000	4 5	0.5
13	Program classrooms are adequate and representative of the profession.	4	NA	4	3	4	2	2	3	2	4	3.111	3.000	2 4	0.927960727
14	Program instructional equipment is current and representative of the profession.	4	NA	4	3	4	2	2	4	2	4	3.222	4.000	2 4	0.971825316
15	My place of employment currently employes graduates of the AT program.	5	NA	5	5	5	3	5	5	NA	5	4.750	5.000	3 5	0.707106781
16	My place of employment would employ graduates of the AT program.	5	5	5	5	5	5	5	5	4	5	4.900	5.000	4 5	0.316227766
17	The AT program is adequately marketed and known among the profession.	3	3	4	4	4	4	2	5	3	5	3.700	4.000	2 5	0.948683298
18	Graduates of the AT program have adequate communication skills (writing and speaking).	4	NA	4	3	4	4	3	4	NA	5	3.875	4.000	3 5	0.640869944
19	Graduates of the AT program have adequate mathematical and scientific skills.	4	NA	4	5	4	4	3	4	4	5	4.111	4.000	3 5	0.600925213
20	Graduates of the AT program have adequate research and analysis skills.	4	NA	4	5	4	4	3	4	2	3	3.667	4.000	2 5	0.866025404
21	Graduates of the AT program have an adequate understanding of building systems.	5	4	4	4	5	5	3	4	3	5	4.200	4.000	3 5	0.788810638
22	Graduates of the AT program have an adequate understanding of construction documents.	5	5	4	5	4	5	4	4	4	3	4.300	4.000	3 5	0.674948558
23	Graduates of the AT program have an adequate awareness of architectural history and design.	4	NA	4	5	5	4	2	3	4	1	3.556	4.000	1 5	1.333333333
24	Graduates fo the AT program have an adequate awareness of professional practice.	4	NA	4	5	5	4	4	3	4	2	3.889	4.000	2 5	0.927960727
25	The AT program provides an adequate foundation for continuing education in architecture.	4	4	5	5	5	5	3	4	4	3	4.200	4.000	3 5	0.788810638
26	The AT program prvides an adequate foundaiton for continuing education in construction	5	4	5	NA	5	5	5	4	4	3	4.444	5.000	3 5	0.726483157
	management or facility management.														
27	I believe advanced degrees in architecture at Ferris are a viable concept.	5	5	5	5	5	5	5	4	5	5	4.900	5.000	4 5	0.316227766
28	The Western Michigan area is an optimal location for a new architecture program	5	5	5	5	5	5	5	4	5	5	4.900	5.000	4 5	0.316227766
	offering a Bachelor of Science in Architecture.														
29	The Western Michigan area is an optimal location for a new	5	5	5	5	5	5	4	4	5	5	4.800	5.000	4 5	0.421637021
	architecture program offering a Master of Architecture.														

COMMENTS: Reference #5, becoming more technical and complex.

Reference #15, no, but I would like to see some!

Reference #27-29, we need to provide advanced degree programs to retain talent, attract talent, and keep talent in W. Mich, it is long overdue.

Overall I see some real improvements in the classroom/technology area and know it is a goal of the program to keep current. I felt my expectations of the program were met and that I was well prepared for the workforce. I believe the bachelor's program would be a great benefit to the shcool. I might have decided to continue if that were an option.

Less CAD more sketching. BS/MS/WM

Reference to #13-14, upgrade the other lab.

Reference to # 1, In general yes. Question #7, I stongly encourage them to prepare more w/education. Question #20, very important (simply put-understanding importance of problem solving and methodology. Question #21, in 2 years, perhaps too much focus on this. Question #22, firms will help mentor this anyway.

Program Profile

Profile of Students

Prepared by: Diane Nagelkirk

Student Demographic Profile:

2000-2004 Student Demographic Data Source: Architectural Technology & Facility Management Department								
Year	Gender		Race/ethnicity			In-state	Out-state	Total # of students
	Female	Male	White	Black	Asian			
2000	4	20	23	1		24		24
2001	5	16	18	2	1	21		**21
2002	5	7	12			12		12
2003	3	18	20	1		19	2	*21
2004	6	16	20	1	1	21	1	22

* Includes 2 FM students
** Includes 4 No grads

The majority of the students enrolling in the program are traditional first year students entering directly from high school. These traditional students have an expectation that classes will be offered during the day and on-campus. As such the possibility of scheduling classes off-campus, on-line, in the evenings and on weekends is not necessary or viable.

Quality of Students:

2004 ACT Freshman Admit Scores Source: Institutional Research and Testing			
	ARCH	PreARCH	Average
Number of Students	25	9	
High School GPA	3.0196	2.7889	2.9603
ACT Composite (mean)	20.52	18.11	19.88
ACT English (mean)	18.8	16.33	18.15
ACT Math (mean)	21.72	17.67	20.65
ACT Reading (mean)	20.68	17.44	19.82
ACT Science (mean)	20.72	20.11	20.56

2000-2004 Student Quality Data Source: Architectural Technology & Facility Management Department					
Year	Average Composite ACT	Average Math ACT	Average High School GPA	Average GPA of Graduate	Total # of students
2000	21	22	2.96	3.01	* 24
2001	20	20	3.26	2.89	** 21

2002	22	22	3.34	3.24	12
2003	22	22	3.31	3.18	*** 21
2004	21	21	3.11		22

* Includes 3 no graduates
** Includes 4 no graduates
*** Includes 3 no graduates

Employability of Students:

Traditionally students graduating from the associate program have been in high demand by the architectural profession specifically for their ability to begin performing at a competent level in the workplace. This trend continues and students choosing to move directly into the work place are very successful in obtaining employment.

Graduate Follow-up Survey
Source: Institutional Research and Testing

Year	Degree	# of Grads	% Response	# of Responses	Placement Rate	# Job &/or CE	CE Only	Ave Salary
2000	AAS	13	61%	8	100%	3	5	$25,000
2001	AAS	16	36%	9	100%	9	NA	NA
2002	AAS	26	35%	7	100%	7	NA	NA
2003	AAS	25	28%	7	100%	7	1	$28,573
2004	AAS							

The table below indicates the ongoing trend for the majority of students to continue for education beyond the associate degree rather than enter the work place after two years of study.

Job vs. Continuing Education
Source: Architectural Technology & Facility Management Department

Year	# of Studs.	**Job**	FM	CM	Architecture	Kendall	Other	**Cont. Ed. Total**
2000	16	**4**	6	1	3		2	**12**
2001	23	**4**	11	6	2			**19**
2002	36	**12**	16	5	3			**24**
2003	20	**9**	4	2	3	2		**11**
2004	22	**7**	6	4	1	3	1	**12**

Enrollment

Prepared by: Diane Nagelkirk

Enrollment Trends:

Enrollment Source: Institutional Research and Testing							
	Freshman	Sophomore	Junior	Senior	Total	SCH's	Pre-AT
Fall 2000	37	27	13	1	78	1155	
Fall 2001	33	30	18	4	85	1286	7
Fall 2002	32	21	10	5	68	1040	10
Fall 2003	42	24	7	3	76	1154	17
Fall 2004	35	37	5		77	1218	9
Fall 2005							

The table below indicates the number of students who applied, the percentage of those students who were admitted and the percentage of those who actually enrolled.

Applicants, Admits and Enrollment (first year admits + transfers only) Source: Institutional Research and Testing				
			% Admitted	% Enrolled
Fall 2000	Applicants			
	Admitted			
	Enrolled			
Fall 2001	Applicants	77		
	Admitted	60	78%	
	Enrolled	25		42%
Fall 2002	Applicants	96		
	Admitted	67	70%	
	Enrolled	30		45%
Fall 2003	Applicants	93		
	Admitted	54	58%	
	Enrolled	38		70%
Fall 2004	Applicants	83		
	Admitted	45	54%	
	Enrolled	32		71%

Enrollment goals:

- To maintain first year program enrollment at 90% or higher of program capacity.
- To maintain second year program enrollment at 90% or higher of program capacity.
- To increase quality of incoming student with direct result of increasing retention rates.

Enrollment strategy and accomplishments:

Marketing and Recruitment

- Expanded recruitment plan was implemented during the winter semester of 2003 that included: development of new recruiting materials (letters, program CD, program pens and pencils), re-analysis and identification of promising high school targets, communication to prospective students through personalized letters, e-mail and phone calls, contact with area-wide high schools through phone calls, classroom visits and career fairs. The results were increased awareness and interest in our program by high school teachers, parents and students and increased enrollment in fall of 2003 to 91% of program capacity.
- Enhanced marketing materials were designed by the Visual Design program and students during the academic year of 2003-04.

Curriculum enhancement and growth

- Implementation of a B.S. in Architecture degree laddering off the recognized 2-year program is fundamental for increasing enrollment & retention and increasing graduation rates.

Program Capacity

Prepared by: Diane Nagelkirk

Current program capacity is 66 students for the first year and 40 students for the second year for a total of 106 students. Given our current number of faculty, physical resources, and funding this is an appropriate enrollment capacity. The factor that most limits program enrollment capacity is the number of faculty and physical resources or classroom space.

Expanded recruitment and retention plans are ongoing to address the discrepancy between actual enrollment and program capacity. In addition, the implementation of a B.S. in Architecture would increase the likelihood of maintaining full enrollment that would match or exceed program capacity. Student surveys collected throughout the past 3 years indicate a favorable response rate to the offering of advanced degrees in architecture at Ferris.

Retention and Graduation

Prepared by: Diane Nagelkirk

Annual attrition rates:

Attrition rates of Admitted Students
Source: Architectural Technology and Facility Management Department

Year	# of Admitted Students	No shows	Dismissed	Changed curriculum	Did not return after 1st year	Did not graduate	# of graduates
2000	65	17	4	4	11	5	24
2001	54	14	3	10	5	5	17
2002	53	12	4	10	11	3	13
2003	70	17	6	9	19		19
2004	63	18	12	4	7		

Current goals and efforts to retain students in the program include:

- Maintain quality instruction and faculty commitment to program.
- Maintain relevant curriculum and sequencing of courses.
- Maintain consistent contact with students by faculty advisor through email and office visits.
- Host annual fall field trip for first year students to Grand Rapids architectural firms and Meyer May home designed by Frank Lloyd Wright.
- Host annual fall student reception to welcome returning and new students, highlight upcoming program events and introduce student organizations and officers.
- Host annual spring student reception to recognize accomplishments of student organizations and academic achievements of individual students.
- Ongoing development of curriculum plan for a B.S. in Architecture degree with direct results of attracting students with higher academic skills, increasing enrollment & retention and increasing graduation rates.
- Ongoing development of a physical plan that provides aesthetically distinctive studio classrooms in the Swan building that is consistent with student learning needs, innovative instructional delivery systems and professional quality of program.

Completion Rates of Graduates
Source: Architectural Technology and Facility Management Department

Class of:	< 2 years	2 years	3 years	4 years	5 years	Total # of graduates	% that graduate in 2 years
Fall 2000		17	6		1	24	71%
Fall 2001	3	9	4	1		17	71%
Fall 2002		12				12	100%
Fall 2003	1	18				19	100%

Access

Prepared by: Diane Nagelkirk

Students entering the AT program are generally traditional full-time students who are prepared to complete their coursework on the Big Rapids campus as a full-time student. Efforts to insure that the program is accessible to these students include the offering of multiple sections of program courses from 8:00 am to 6:00 pm. In addition the delivery of instruction accommodates different learning styles through a mix of lecture, visual aids, small-group projects and critical thinking activities. The use of mixed delivery of instruction reinforces the program goal of simulating the real world and offers students a more accurate view of professional practice.

Curriculum

Prepared by: Gary Gerber

The Architectural Technology Associate in Applied Science Degree is a 2-year program that requires a total of 66 semester hours for graduation. The educational philosophy of the AT curriculum is designed to provide vocational readiness. Since its inception in the early 1950's, the AT curriculum has provided high quality technical education that responds to the needs of the architectural profession.

COURSE NUMBER & NAME	COURSE DESCRIPTION	COMMENTARY
ARCH 101 Architectural Graphics 1	A foundation course in hand drawn graphic methods used to plan and present buildings. Hardline drafting and sketching techniques are used to develop orthographic, axonometric, and perspective illustrations of buildings. Emphasis is placed on enhancement of graphics through understanding and application of: organization of text and graphics, entourage, and color.	This course is a foundation course that teaches students basic hand drafting and presentation skills.
ARCH 102 Architectural Construction Documents 1	A foundation course in architectural theory and practice involved in the production of working drawings. Site plans, foundation plans, framing plans, floor plans, building elevations, building sections, wall sections, schedules and details are covered. Emphasis is placed on drawing-set organization, sheet composition, application of symbols and conventions, notes, titles and dimensions. Work is primarily CAD based.	This course is their introduction to working drawings where students apply coursework from other classes and develops their 1st set of working drawings. This course utilizes 25% hand drafting and 75% CAD. Students are given fairly developed drawings and asked to assemble a set of working drawings by doing some research into codes and materials.
ARCH 109 Computer Graphics in Architecture 1	A foundation course in CAD graphic methods used to present and document buildings. Two-dimensional and three-dimensional modeling concepts and techniques are covered. Emphasis is placed on development of CAD graphics through understanding and application of architectural standards, management of templates, layouts, layers, and text and dimension styles.	This course is another foundation course that focuses on developing CAD skills utilizing AutoCAD for work in an architectural office. Students come to this course with widely varying CAD skills due to varying exposure at the high school level. We generally don't offer a CLEP exam for this course but do occasionally give credit to students based on their portfolio of Architectural CAD work.
ARCH 112 Structural Materials, Systems, and Codes	Survey of properties, characteristics, limitations, criteria, and graphic interpretation of concrete, masonry and wood used in foundation, substructure, superstructure building systems. Includes aesthetic, performance, maintainability, and cost/benefit aspects. Uses major building codes, material and industry standards, and utilization of manufacturer's catalogs.	This course exposes students to the basic materials of building construction. With this exposure, students are taught where to find, analyze and compare materials used in construction. Codes are introduced to students and there is a sketching\problem component to this course. Labs are designed to give students context of the materials and how they work in the built environment

ARCH 115 Interior and Exterior Finishes and Systems	Survey of properties, characteristics, limitations, selection criteria, and graphic interpretation of common interior and exterior finish materials and systems used in exterior closure, roofing, and interior construction. Includes aesthetic, performance, maintainability, and cost/benefit aspects.	This course continues exposing students to materials without a lab component. Interior and exterior finishes and building codes are the focus of this course.
ARCH 203 Architectural Construction Detailing	Introduction to the process and design development phase of producing construction details for an architectural project. Emphasis is placed on selection and assembly of materials that are consistent with the project's design concept. Product research, performance, and cost/benefit analysis are included. Work is primarily CAD based.	This course attempts to pull together previous drawing lab courses and materials courses and get students to do critical thinking and problem solving. The textbook reinforces concepts learned in the materials of construction course and the lab assignments are designed to apply the concepts to real life building situations.
ARCH 204 Architectural Construction Documents 2	The development of presentation drawings and architectural working drawings for a commercial or industrial building type. Includes preliminary structural and mechanical requirements along with major drawings required to complete a professional set of working drawings. Work is primarily CAD based.	This is the capstone course in which students produce a set of working drawings for a commercial building. Students are given more responsibility for research of materials and codes. A team situation is implemented during some of this course. Students that lack motivation have a hard time producing the required drawings to pass the course.
ARCH 241 Design Fundamentals	A foundation course in the architectural design process and in the basic design principles used to plan and design buildings. Emphasis is placed on observation, analysis and application in the creation of two-dimensional and three-dimensional design.	This course is an introduction to basic design theory which is a major premise of architectural education.
ARCH 244 Historical Development of Western Architecture	Survey of historical development of western architecture spanning the ancient, classical, medieval, renaissance, and modern period. Emphasis is placed on the relationship of form and structure to the social, environmental, and technological factors of the culture from which the architecture came.	This course is an introduction to the history of western architecture. This course also meets general education cultural enrichment requirements. Students from other programs take this course as an elective and serves as a recruiting tool for the program.
ARCH 216 Professional Practice	Survey of legal relationships between owner, architect, and contractor, and a study of written contractual documents developed for an architectural project. Office procedures, AIA standard documents, and currently accepted formats are discussed. Student develops the technical section content of a specification based upon a previously completed project. Job seeking skills and portfolio preparations are included.	This course gives students a peak into the legal climate of the built environment. Students are also asked to develop resumes and portfolios to prepare them for their eventual job hunt.
ARCH 223 Statics and Structures	Provides an awareness of the primary structural systems including wood, concrete, and steel, and the appropriate use of each material. Basic static and strength of material principles are introduced and students are familiarized with references such as AISC Steel handbook and the ACI Code.	This course is a course that exposes the student to structural engineering principles. A student should come out of this course with a vocabulary to communicate structural building issues with engineers and building owners.

ARCH 250 Systems Cost Estimating	A foundation course in methods of construction cost estimating based on a systems approach. Emphasis is placed on takeoff and preparation of estimates that are appropriate for use during the design phase of a project.	This course explores cost estimating for the design industry. Students develop estimates using various estimating methods that can be used depending on the information available to the estimator.
HVAC 337 Mechanical and Electrical Systems for Buildings	Awareness of heating, ventilating, and air-conditioning systems, water supply, sanitary, storm, fire protection systems, electrical distribution, lighting, and acoustical systems for buildings. Emphasis is on system integration, energy considerations and their effects on building planning, detailing, and construction. Discusses equipment, code requirements, and building applications.	This course gives students a background of the systems that must be coordinated into a building. This course should give students a vocabulary and awareness of building mechanical\electrical systems which architects are responsible in coordinating.

Architectural Electives

ARCH 270 Advanced Use of CAD in Architecture	Computer modeling and rendering of three-dimensional building and site models. Course content includes wire frame and surface models, solid modeling as it applies to architecture, shades and shadows, artificial light sources, raytraces and radiosity, use of texture maps and animation walk-throughs.	This course allows students to take their CAD skills developed in ARCH 109 and take them to another level.
ARCH 285 House...The American Evolution	A survey of the development of various housing styles in America and their relationship to each other as well as social and economic developments. Students study the essence of architectural elements common in successful residential design. Students will design a house following the design conventions of the style of their choice for a given program.	This course allows students that have a desire to design homes to get an exposure to housing styles and even design a home to a particular style given a building program that must be met. This course utilizes CAD and sketching skills
ARCH 297 Special Studies in Architectural Technology	initiated studies focusing on a topic chosen by the ıl or group. These studies involve problem ıtion, problem design, methodology, data collection, lysis and conclusions expressed in written, graphic, ral reports.	This elective allows students to develop a special course of study that the student is specifically interested in learning. The student must find a faculty willing to oversee their independent studies.
FMAN 321 Principles of Facility Management	A foundation course with emphasis on the Facility Management process, terminology, and organizational development. Includes an introduction to basic methods, concepts and procedures of facility planning, programming budgets, project management, office productivity measurements, and operations management.	This course allows students to explore FM and also get credit toward their 4 year FM degree
CONM 111 Construction Practices	Materials, methods and equipment used on heavy commercial construction projects. Site layout, earthwork, foundations, and structural components of a project. Quantity takeoff, materials ordering, and basic construction codes are introduced.	This course allows students to explore CM and also get credit toward their 4 year CM degree
CONM 122	Fundamentals of construction surveying including taping, leveling, angular measurement, traversing, topographic surveying, bridge layout, circular curves, building layout, and grade staking.	This course allows students to explore CM and also get credit toward their 4 year CM degree

CONM 212 Soils and Foundations	An introduction to soil mechanics. The origin and engineering characteristics of soil, soil classification systems, the strength of soil masses, control of structural embankments, and an introduction to the design of foundations.	This course allows students to explore CM and also get credit toward their 4 year CM degree

1) Program requirements 66 credit hours; 20 credit hours are general education requirements and the remaining 46 credit hours are program related coursework. ARCH 244 does count toward general education cultural enrichment requirements.

   We have several directed electives for the current program. We offer electives in Architecture, Facility Management and Construction Management to allow students to explore\test out different career paths. These 3 careers are the most common path for our graduates.

   Most of our general education courses are directed. The only option we have is for a student to choose between COMM105 Interpersonal Communication and COMM 121 Fundamental of Public Speaking making it a semi directed elective.

   MATH 116 is a directed general education course. We currently require this level of math proficiency, which reflects the industry need for a math competency. The university only requires MATH 110 to meet their Quantitative Skills requirement.

   PHYS 211 is a directed general education course. We require this course because an understanding of basic physics is a necessary foundation for many aspects of architecture and building design. This course meets the Scientific Understanding requirement.

   ENGL150 is a required Communication Competence Requirement. There are no options to this course.

   ENGL 250 is directed general education course that meets the Communication Competence Requirement. We have chosen this course over ENGL 211 as ENGL 250 offers students easy transfer to other programs and universities.

   PSYC 150 is a directed general education that meets the Social Awareness requirement for the AAS degree. We chose this course because it meets the prerequisite for a PSYC course required in Facility Management. This course is also a good course for people entering into the field of architecture.

   Currently there are no hidden perquisites. This could change as Construction Management is currently making changes to their requirement for students transferring into CM from AT which could affect our CM electives.

2) There have been changes to the program since the last review. Below is a listing of the changes;
    - ARCH 101 Architectural Graphics changed from 4 credit hours (2 lec; 6 lab) to 3 credit hours (2 lec; 4 lab)
    - ARCH 109 Introduction to Computer Graphics in Architecture was changed from 2 credit hours (1 lec; 3 lab) to 3 credit hours (2 lec; 4 lab) ARCH 109 and ARCH 209 were combined into ARCH 109
    - ARCH 102 was revised to add 75% CAD component from 100% hand drafting.
    - ARCH 241 Design Fundamentals changed from 2 credit hours (1 lec; 3 lab) to 3 credit hours (2 lec; 2 lab)
    - ARCH 260 Energy Conscious Design was removed as an elective
    - ARCH 270 Advanced Use of CAD in Architecture from 1 credit hour (2 lec; 0 lab – ½ semester) to 3 credit hours (2 lec; 2 lab –full semester)
    - ARCH280 Advanced Presentation was removed as an elective
    - ARCH281 Advanced Presentation 2 was removed as an elective
    - ARCH 285 House: An American Evolution changed from 2 credits (2 lec; 0 lab) to 3 credits (2 lec; 2 lab)
    - ENGL250 was moved from the Winter of the 1st year to Fall of the 2nd year
    - COMM 121/105 was moved from the 2nd year - Fall semester to 1st year - Winter semester
    - ARCH 241 Design Fundamentals was moved from Winter of the 2nd year to Fall of the 2nd year
    - ARCH 290 Architectural Model Making was offered Winter 2005 as an experimental course
    - ARCH 112 Structural Materials and Systems changed from 4 credit hours (3 lec; 3 lab) to 3 credit hours (3 lec; 2 lab)
    - ARCH 203 Architectural Construction Detailing changed from 4 credit hours (2 lec; 7 lab) to 3 credit hours (2 lec; 6 lab)
    - ARCH 204 Architectural Construction Documents 2 changed from 4 credit hours (2 lec; 7 lab) to 3 credit hours (2 lec; 6 lab)
    - Architectural electives have generally been made 3 credit hour courses and moved from being offered Fall and Winter of the 2nd year to Winter of the 2nd year.

3) There are no changes currently in the review process.

4) There are plans to revise the current program within the next three to five years. We are discussing revising our drawing lab courses to better coordinate content between courses. ARCH 101, ARCH 102, ARCH 109, ARCH 203 and ARCH 204 are the courses being considered for revision. The reason for considering this revision is due to changes in industry and feedback from our students. Students come to our program with a variety of skills. Ideally we would like to

accommodate the student with advanced skills while allowing the student with limited skills to flourish. We also would revise our program if we go ahead with a BS degree in Architecture. An advanced degree in Architecture has been an ongoing goal for our faculty group but there has not been consistent support from above. A rework of the program may be necessary due to a directive from the VPAA office to reduce the credit hours to 64 hours.

Quality of Instruction

Prepared by: Mary Brayton

Student, Alumni, Employer, and Advisor Board Perceptions.

Student, Alumni, Employer, and Advisory Board surveys were designed, administered, and compiled as part of the program review process.

Alumni and Employers Perceptions:
The surveys for Alumni and Employers were designed to address several categories of competencies that are required for entry-level work in the field of architectural technology. Four competency areas were identified. These include: General Skills, Design, Construction Documents and Technical skills.

A summary of the results for each category follows. The Mean for all questions in the category is provided here. For complete results refer to Section 2.

Competency:	**Mean on 1-5 scale where 1 is low and 5 is high**	
	Alumni	**Employers**
General Skills	3.70	3.82
Design	3.89	3.63
Construction Documents	3.64	3.56
Technical Skills	3.62	3.76

An additional question asking alumni how satisfied they were overall with their education in architectural technology at Ferris received a mean score of 4.16.

All results indicate that the program prepares students much better than average to perform as architectural technology professionals. Alumni indicate lower ratings in the areas of Construction Documents and Technical Skills, while Employers indicate Construction Documents and Design as the weakest area. Alumni's highest mean score was in the area of Design yet it was given the second lowest mean rating by Employers.

Under Construction Documents, Alumni scored the highest ratings in the areas of "Ability to understand building materials" (mean 4.25) and "Ability to effectively execute working drawings" (mean 4.17). The lowest ratings occurred in the areas of "Ability to understand mechanical and electrical systems", "Awareness of environmental issues" (mean of 3.11 for both), "Ability to understand cost estimate methods" (mean 3.37) and "Awareness of AIA contract documents" (mean 3.40).

Under Construction Documents, Employers scored the highest ratings in the areas of "Demonstrates the ability to effectively execute working drawings" (mean 4.05), "Demonstrates understanding of Building materials" (mean 3.86), "Demonstrates ability to detail Building materials" (mean 3.86), and "Demonstrates understanding of Project development phases" (mean 3.86). The lowest ratings occurred in the areas of

"Demonstrates understanding of cost estimate methods" (mean 3.10) and "Demonstrates awareness of AIA contract documents" (mean 3.05).

Under Technical skills, although Alumni scored a high rating for "Ability to effectively utilize 2-Dimensional CAD software" (mean 4.32), they scored a low rating for "Ability to effectively utilize 3-Dimensional CAD software" (mean 3.30). Currently in the AT program the emphasis is on teaching and utilizing 2-Dimensional CAD for the preparation of construction documents. Although 4 weeks are devoted to the teaching of 3-D CAD in the freshman year it is not heavily utilized. Students have the opportunity to take an advanced 3-D CAD class as an elective in their 4th semester of the program but only a small number of students chose to do so.

Student Perceptions:
Since current students have not completed the entire curriculum, a separate survey was designed, administered, and compiled to assess their feelings about the Architectural Technology program. This survey was not designed around the competencies, but rather around various aspects of the educational experience.

A summary of the results for each category follows. The Mean for all questions in the category is provided here. For complete results refer to Section 2.

Measured area:	**Mean on 1-5 scale where 1 is low and 5 is high**
Program Courses	3.88
Written Course Objectives	3.68
Teaching Methods, Procedures, and Course Content	3.69
Program Faculty and Teaching	3.75
Related Course Faculty and Teaching	3.40
Program Classrooms	3.86
Non-Program Classrooms	3.58
Program Instructional Equipment	3.47
Program Instructional Materials	3.63
Instructional Support Services	3.69
Placement Services	3.30

Students rank all categories affecting their academic experience as above average. However, none rank above a 4.0 on the scale. The areas to receive the lowest ratings are Related Course Faculty and Teaching, Program Instructional Equipment, and Placement Services.

Advisory Board Perceptions:
A separate survey was administered to advisory board members at the annual advisory board meeting. The survey identifies a potential need for more graduates to meet the needs of the profession and a need to upgrade existing labs to meet industry standards. In all other areas the advisory board members were impressed by the curriculum, faculty, and quality of employee produced by the AT program.

Efforts to Improve Learning Environment.

- Improved Teaching Spaces: In the last few years, two classrooms have experienced improvements ranging from new furniture to complete room renovation.
- Overhead Projectors: Several of the spaces have improved lecture stations with overhead projectors.
- Scheduled Computer Replacement: The program chair has diligently monitored computer conditions and obtained funding for replacement as needed.
- More Graphic Presentation: The use of Power Point has been increased to provide students with more visual images of the course content.
- Activity Related Learning: In several courses projects have been redesigned to provide students with hands on applications to the theory presented in lectures.

Faculty Professional Development.

The faculty teaching within the Architectural Technology program have continuously been involved in developing and enhancing their skills. Faculty development has been supported at various levels over the past few years:

- The program has budgeted $1,000 per year from S&E funds per faculty member for faculty development.
- The College of Technology has granted program faculty individual and group grants that have funded workshops and seminars as well as travel and research.
- The University has funded travel through Timme Grants as well as individual research through Faculty Research Grants.

Examples of fully or partially funded professional development activities include:

- At least one faculty member attends the national convention of the American Institute of Architects.
- LEED for New Construction and Major Renovations: Technical Review Workshop. US Green Buildings Council at FSU.
- Sketching Workshop with Paul Lasseau at FSU.
- REVIT Fundamentals Seminar.
- Sabbatical field research.

See Section 3H for complete information of continuing education activities of faculty.

Efforts to Increase Interaction of Students with Faculty and Peers.

The program and department work to create opportunities for students to experience learning beyond the classroom by providing opportunities for students to interact with professionals. Some examples of these efforts include:

- Annual Welcome Back Reception for all AT students.
    - Provides opportunity to learn about programs, faculty, student organizations, etc.
- Annual Awards and Recognition Reception for all AT and FM students.

    - Recognizes students for outstanding service and academic accomplishments.
- Field trip to Grand Rapids, MI.
    - Students and Faculty visit three different architectural firms located in Grand Rapids. Tours are conducted by alumni of the AT program who are currently employed by each respective firm.
- Guest Speakers.
    - Various guest speakers are brought in to discuss their career paths and explain how their occupation supports the building profession.

Current Research and Practice to Infuse Teaching and Learning with Inclusive Pedagogy.

Various methods of presenting and learning materials are used to allow all students to better understand course content. These methods include: lecture, discussion, readings, problem solving, individual and team activities, and oral and visual presentations.

Composition and Quality of Faculty

Prepared by: Diane Nagelkirk

Faculty:

Mary Brayton, AIA, Associate Professor
A.A.S Arts, Grand Rapids Community College
B.S. Architecture, University of Michigan
M. of Architecture, University of Michigan

Bruce Dilg, NCARB, Associate Professor
B.S. Industrial Education, Bradley University
M.S. Occupational Education, Ferris State University

Gary Gerber, AIA, CSI, CDT, LEED AP, USGBC, Associate Professor
A.A.S Architectural Technology, Ferris State University
B.S. Architecture, University of Michigan
M.B.A., Grand Valley State University

Mel Kantor, AIA, CFM, Professor
B. of Architecture, University of Illinois

Diane Nagelkirk, AIA, Associate Professor/Department Chair
B.S. Architecture, Lawrence Technological University
B. of Architecture, Lawrence Technological University

Joe Samson, CFM, Associate Professor
B. of Architecture, Kent State University
M. of Architecture, Kent State University

Promotions since last program review:

Mary Brayton
Promoted from Assistant to Associate Professor May 2004
Gary Gerber
Merit May 2005
Diane Nagelkirk
Merit May 2000
Merit May 2005
Joe Samson
Merit May 2001

Professional Activities:

Mary Brayton, Associate Professor

Continuing Education

Mike Lin Graphic Workshop
San Francisco, CA
June 19 – 25, 2005

LEED Technical Training
Big Rapids, MI
April 14, 2005

Paul Laseau Freehand Sketching Workshop
Big Rapids, MI
April 1, 2005

Building Science Seminar
Grand Rapids, MI
February 1, 2005

National AIA Convention
Chicago, Illinois
June 10-12, 2004

National Fire Sprinkler Association
Big Rapids, MI
April 13, 2004

Teaching and Preventing Brain Drain
The Center for Teaching, Learning & Faculty Development, FSU
October 20, 2003

Creativity Conference - Being a Creative Being: Our infinite Potential
Northwood Academy, Midland Michigan.
July 10-13, 2003

Revit Fundamentals Training
Sterling Systems & Consulting, Inc., Grand Rapids
June 30 – July 2, 2003

Zero Energy Homes in Michigan
Concord Grove Educational Center, Alto Michigan.
May 3, 2003

Teaching That Promotes Learning
Dr. Maryellen Weimer, director of the Instructional Development Program at PSU
March 28, 2003

The Value of Masonry – Masonry verses Steel & Studs, Masonry Institute of Michigan
Grand Rapids, MI
March 27, 2003

Horizontally Sliding Doors in a Means of Egress, The Won-Door Corporation.
Grand Rapids, MI
March 27, 2003

Glass Mat Gypsum Technology, Georgia Pacific.
Grand Rapids, MI
March 27, 2003

Roofing 101, NTH Consultants.
Grand Rapids, MI
March 27, 2003

Grand Rapids Bus Terminal, Tensile structures by Birdair Inc.
Grand Rapids, MI
February 20, 2003

WebCT Upgrade Workshop
The Center for Teaching, Learning & Faculty Development, FSU
November 27, 2002

EDIFIS Institute – 2002 Roof Seminar
Grand Rapids, MI
October 23, 2002.
Classroom Acoustics, Acoustics by Design, Inc.
Grand Rapids, MI
October 1, 2002
Firestone BPCO - Membrane roofing, Marty Wildfong Associates.
Grand Rapids, MI
October 1, 2002
Structural Insulated Panels, Resource Technologies Group & Team Industries Inc.
Grand Rapids, MI
October 1, 2002
Precast Building Systems. Kerstra / Spancrete Great Lakes.
Grand Rapids, MI
October 1, 2002
Exterior Insulating Finish Systems, The Next Generation. Sto-ex Inc.
Grand Rapids, MI
October 1, 2002
Firestopping Systems & Life Safety. Specified Technologies, Inc.
Grand Rapids, MI
October 1, 2002
Hydrotect: Self-cleaning ceramic tile. DS America Inc.
Grand Rapids, MI
October 1, 2002
Tile Forensics. Laticrete International Inc.
Grand Rapids, MI
October 1, 2002
Ecological Design Conference: The Unstoppable Wave.
San Francisco Institute of Architecture
July 2002.
Expanding the Territory of Design
Julie Snow, FAIA, Grand Rapids, MI
May 16, 2002.
WebCT: Preparing for your First Semester
The Center for Teaching, Learning & Faculty Development, FSU
January 2002.
Recent Thoughts and Works
Gunnar Birkerts FAIA., Grand Rapids, MI
February 27, 2002
AIA Grand Valley Leadership Retreat
Progressive AE Inc., Grand Rapids, MI.
January 12, 2002.
Building Green, William Browning, Rocky Mountain Institute
Grand Rapids, MI
October 26, 2001.
Sustainable Architecture, The Grand Valley AIA
Grand Rapids, MI
October 10, 2001
How Students Learn
Terry Doyle of the Center for Teaching, Learning & Faculty Development, FSU
October - December 2001
National AIA Convention
Denver, Colorado
May 18-20, 2001
Stanley Tigerman, Current Work. Stanley Tigerman
Grand Rapids, MI

April 11, 2001.
AutoCAD 2000 Update.
Grand Rapids Community College, Grand Rapids, MI
July 2000
Critical Thinking Workshop. Richard Paul, author of Critical Thinking
Center for Teaching, Learning & Faculty Development, FSU
July 2000
National AIA Convention
Philadelphia, PA
May 2000

Professional Affiliations

American Institute of Architects, January 1998 – December 2004

Bruce Dilg, Associate Professor

Continuing Education

M.I.T.E.S State Skill Competition Judge
Traverse City, Michigan
May 1999
Critical Thinking Faculty Summer Institute
Dr. Richard Paul
Big Rapids, Michigan
July, 2000
AutoCad 14-2000 Upgrade 2 Day Seminar
Seattle,Washington
August 2000
M.I.T.E.S Regional Craftsman Fair Judge
Mcbain, Michigan
May 2001
A.I.A. National Convention
Denver, Colorado
May 2001
Six Degrees of Collaboration Conference
A.I.A. Headquarters, Washington, D.C.
April, 2002
Evaluator – Technical/Professional Writing Curriculum Portfolio Presentations – FSU
Big Rapids, Michigan
May 2002
A.I.A. National Convention
San Diego, California
May 2003
Revit Parametric Modeling Software Training
Grand Rapids, Michigan
July, 2003
A.I.A. National Convention
Chicago, Illinois
June 2004
Technology in Architecture Conference
Las Vegas, Nevada
June, 2005
A.I.A. National Convention
Las Vegas, Nevada
June 2005

Professional Architectural Work – Arcom Architects

1999
Fellowship Christian Reformed Church - Big Rapids, MI

Antlers Restaurant - Canadian Lakes, MI
Walker Condominiums - Big Rapids, MI
2000
Wakely Architects Consulting - Mt. Pleasant, MI
Stonehill East Vet Clinic – Remus, MI
Edwards Residence – Big Rapids, MI
2001
Gogolin Residence – Evart, MI
Wilson Residence – Horsehead Lk., MI
Stern Dental Office – Big Rapids, MI
Immanuel Lutheran Church – Big Rapids, MI
2003
Baughan Residence – Reed City, MI
Manor Residence – Big Rapids, MI
Big Jackson School – Big Rapids, MI
St. Andrew's Episcopal Church – Big Rapids, MI
2004
Riverbend Animal Clinic – Big Rapids, MI
Williams Beauty Parlor
2005
Big Rapids Band Shell – Big Rapids, MI
Country Adult Foster Care – Reed City, MI
Burke Equine Development – Lakeview, MI
Boone Residence – Kingsley, MI
Brew Residence – Rogers Heights, MI

Gary Gerber, Associate Professor

Continuing Education

Success Magazine Investor Education
Crowne Plaza Grand Rapids
August 12, 2005 (8 hours)
Get Motivated Business Seminar
Van Andel Arena
August 2, 2005 (8 hours)
Place in Mind: Building Public Awareness About Great Communities
Grand Valley Metropolitan Council
June 9, 2005
Sketching Workshop with Paul Lasseau
Ferris State University
April l, 2005
Sexual Harassment Awareness Session
Ferris State University
April 2005
New Brain Research and Its Application to Career and Technical Education
Michigan Drafting Educators Association
November 2004
United States Green Building Council Conference and Exposition
Portland Oregon
November 10-13, 2004
LEED AP training
United States Green Building Council
East Lansing MI
June 16, 2004
AIA 2004 National Convention and Design Exposition
Chicago, Illinois
June 10-12, 2004

Revit 5 Level 1 Software training
Autodesk Training Center
Grand Rapids, Michigan
June 30-July 30 2003
Ferris State University
2003 Critical Thinking Institute
May 22-23, 2003
Construction Document Technician Training
Construction Specification Institute
Grand Rapids, Michigan
February 18-April 8 2003 (16 hours)
United States Green Building Council Conference and Exposition
Austin Texas
November 13-16, 2002
Architectural Desktop 3 Level 1 Training
Autodesk Training Center
Grand Rapids, Michigan
June 11-June 14 2002
Problem Based Learning
FSU Center for Teaching, Learning and Faculty Development
July 16-18, 2001
AIA 2001 National Convention and Design Exposition
Denver, Colorado
May16-19, 2001
Michael Graves-The Design Process
Kendall College of Art and Design
April 27, 2000

Professional Memberships

Member – Grand Valley AIA (2004 - Present)
Member -- United States Green Building Council (2002 - Present)
Member -- Construction Specification Institute (1996 - Present)

Professional Architectural Work – Gerber Architectural

1999
Eagle Village Dining Center Addition and Renovation – Hersey, MI
Eagle Village Assessment Center Addition and Renovation – Hersey, MI
Michigan Works West Michigan Service Center Addition—Big Rapids, MI
Evart Public School Elementary School remodeling —Evart MI
2000
Pioneer Group Production Facility – Big Rapids, MI
Jim and Carol French cottage addition and renovation– Canadian Lakes, MI
Kim Holt cottage addition and renovation– Chippewa Lake, MI
2001
Jim and Joyce Bradley Residence – Canadian Lakes, MI
Hinkle Witbeck Insurance Agency – Reed City, MI
River's Edge Condominiums – Big Rapids, MI
2002
Reed City Fire Barn – Reed City, MI
Dr Alex Tosic Residence – Big Rapids, MI
Mitch and Carol Swayze Cottage – Beaver Island, MI
2003
Michigan Works West Michigan Service Center—Baldwin, MI
Art Works – Big Rapids, MI
Bengry Home addition and renovation – Evart, MI
Wolverton Cottage addition and renovation – Bear Lake, MI
2004
Pattie Drugs addition and renovation – Baldwin, MI

Battdorf home renovation – Big Rapids, MI
Neale Business Center – Reed City, MI
2005
Jim and Dorothy Heyart cottage addition and renovation– Canadian Lakes, MI
Jerry and Marcy Springer cottage addition and renovation– Canadian Lakes, MI
911 Dispatch Addition – Paris Michigan
Millitary Recruiting Center lease space Main Street Business Center—Grand Rapids, MI
Nail Salon lease space Main Street Business Center—Grand Rapids, MI
Crystal River Cottages – Glen Arbor, MI
Brower Home – Rodney, MI

Mel Kantor, Professor

Continuing Education

7th Annual Waste Reduction and Energy Efficiency Seminar
9/10/1999
Exploring the Eames Design Philosophy
AIA Grand Valley
9/16/1999
IFMA 1999 World Workplace Conference and Seminar
10/3 – 5/1999
Leadership in the Profession
AIA Grand Valley
10/21/1999
Michael Graves – The Design Process
4/27/2000
ADA Update and Mock Mediation
Evan Terry Associates, P.C.
5/31/2000
Critical Thinking – Basic Theory and Structure
7/11 – 12/2000
Building Science...Keeping Buildings Healthy and Dry
AIA Grand Valley
10/9/2000
Trends in Occupational Studies Conference
10/27/2000
Leadership in Architectural Education
AIA Grand Valley
1/24/2001
2001 Governor's Conference on Career Development
2/4-6/2001
Slow Design...Tod Williams & Billie Tsieh
AIA Grand Valley
2/21/2001
First Annual Technology & Workplace Conference
AIA Michigan
4/26-27/2001
Sustainable Architecture & Environmental Issues
AIA Grand Valley
5/10/2001
Problem-Based Learning
FSU Center for Teaching, learning and Faculty Development
7/16-18/2001
Summer University
Ferris State University
8/2/2001
IFMA 2001 World Workplace Conference and Seminar

9/23-25/2001
Sustainable Architecture
AIA Grand Valley
10/21/2001
Trends in Occupational Studies Conference
11/1-2/2001
Teaching Methods...Learning Centered Classroom
11/12,19,26/2001
Tom Buresh Presentation
AIA Grand Valley
11/27/2001
2002 Governor's Conference on Career Development
1/21-23/2002
Computer-Aided Facility Management Workshop
Michigan State University
3/6-8/2002
Eco Logic Design
AIA Grand Valley
5/9/2002
2002 AIA National Convention
American Institute of Architects
10/3-5/2002
Summer University
Ferris State University
6/6-9/2002
Employee Leadership Development Program
Ferris State University
9/2002 – 4/2003
Lilly Conference on College & University Teaching – North
9/20-21/2002
IFMA 2002 World Workplace Conference and Seminars
10/6-8/2002
Total Facility Management Conference
4/21-23/2004
Computer-Aided Facility Management Workshop
Michigan State University
5/18-20/2004
IFMA 2004 World Workplace Conference and Seminars
10/16-19/2004

Professional Memberships

Corporate member – American Institute of Architect (1961 – present)
Member – Grand Valley AIA (1975 – present)
Board Member and Continuing Education Director, Grand Valley AIA (1998 – 2002)
Member – Michigan Society of Architects (1975 – present)
Member – International Facility Management Association (IFMA) (1990 – present)
Secretary – Western Michigan Chapter of IFMA (1997 – 2000)
President – Western Michigan Chapter of IFMA (2000 – 2002)
Past President – Western Michigan Chapter of IFMA (2002 – 2003)

Professional Achievements

Certification as a Facilities Manager (CFM), IFMA by examination
AIA Grand Valley President's Award (1999)
Lifetime Certified Facility Manager status, IFMA (2000)

Professional Architectural Projects

Rustic Gate Bed & Breakfast and Conference Center
Hungerford Lake
Big Rapids, Michigan

Addition to Residence for Matthew and Nancy Klein
Big Rapids, Michigan
Space Planning Studies – Dean's Offices and Department Chair Offices
Ferris State College
College of Technology

Diane Nagelkirk, Associate Professor

Continuing Education

Sketching Workshop with Paul Lasseau. (FSU)
Big Rapids, Michigan
April 1, 2005
International Facility Management Association 2004 Conference and Expo
Salt Lake City, Utah
October 15-19, 2004
Rockhurst University
Project Management
January 31, February 1, 2004
AIA 2004 National Convention and Design Exposition
Chicago, Illinois
June 10-12, 2004
Total Facility Management Show and Exposition
Chicago, Illinois
April 21-24, 2004
Grand Valley State University
Academic Lecture Series
November 5, 2003
AIA Grand Valley
CEU Marathon Day
October 1, 2003
Alden B. Dow Creativity Center
International Conference on Creativity in Colleges and Universities
July 10-13, 2003
AutoDesk Training Workshop
Revit Fundamentals
July 1-3, 2003
ACSA/AIA Teachers' Seminar
Sustainable Pedagogies and Practices
June 12-15, 2003
Ferris State University
2003 Critical Thinking Institute
May 22-23, 2003
Concord Grove Educational Center of West Michigan
Zero Energy Homes in Michigan Lecture
May 3, 2003
Concord Grove Educational Center of West Michigan
Ecological Design: Inventing the Future
April 25, 2003
Concord Grove Educational Center of West Michigan
The Soulful Approach to Religion and Life
April 11, 2003
Ferris State University
Spring Learning Institute
March 28, 2003
Ferris State University
Center for Teaching, Learning, and Faculty Development

March 19, 2003
Ferris State University
Center for Teaching, Learning, and Faculty Development
January 29, 2003
AIA Grand Valley
Sustainable Architecture Seminar
October 10, 2001
Calvin College Seminars in Christian Scholarship
Monks and Markets: culture, Economics, and Good Cities
July 17, 2001
Calvin College Seminars in Christian Scholarship
The Self: From the Postmodern Crisis to a Transmodern Solution
July 10, 2001
AIA Grand Valley
Architecture Lecture
November 16, 2000
Environmental Design Research Association Conference
Orlando, Florida
June 2-6, 1999

Professional Consultation

Via Design, Grand Rapids, Michigan (May 2002-August 2002, May 2003-August 2003)
Kabookies Restaurant
East Grand Rapids, Michigan
Jade Pig Headquarters
Grand Rapids, Michigan
Cheshire Village Center
Grand Rapids, Michigan
Various Residential Design Projects

Independent Architectural Projects

Home Design of Residence for B. Teegardin
Hastings, Michigan
June 2004
Home Design of Residence for C. Cook
Grand Rapids, Michigan
June 2003
Addition and Remodeling of Residence for D. Zoeterman
Saugatuck, Michigan
August 2002
Addition and Remodeling of Residence for S. Sunden
Howard City, Michigan
March 2002
Addition and Remodeling of Historic Residence for M. Wilson
Heritage Hill Historic District
Grand Rapids, Michigan
June 2001
Addition and Remodeling of Residence for M. Pulte
Grand Rapids, Michigan
June 2000
Addition and Remodeling of Yarrow Lodge
Augusta, Michigan
June 2000
July 2002

Joe Samson, Associate Professor

Continuing Education

LEED for New Construction and Major Renovations: Technical Review Workshop. US Green Buildings Council. (FSU)
Big Rapids, Michigan
April 14, 2005

Sketching Workshop with Paul Lasseau. (FSU)
Big Rapids, Michigan
April 1, 2005

Diversity Education Session. FSU
Big Rapids, Michigan
March 25, 2005

The Intentional Campus: Everyday Opportunities to Enrich Students' Experience by Improving the Physical Environment of a Campus. Society for College and University Planning. (Teleconference)
Big Rapids, Michigan
February 17, 2005

TFM (Total Facilities Management) Show at Construct America.
Chicago, Illinois
April 21-23, 2004

Spring Learning Institute 2004: FSU.
Big Rapids, MI
April 2, 2004

FSU Seminar and Introduction to WebCT. FSU.
Big Rapids, MI
Winter 2004

REVIT Fundamentals. Autodesk Training Center.
Grand Rapids, MI
May 30, June 1-2, 2003

2002: The Annual Convention of the International Facility Management Association
Toronto, Ontario
October 6-9, 2002

ADA Seminar and Mock Mediation Program. Grand Valley AIA.
Grand Rapids, MI
May 18, 2000

AutoCAD 2000 Update. Autodesk Training Center.
Grand Rapids, MI
May 8-9, 2000

Diversity in Higher Education. FSU.
Big Rapids, MI
April 2000

Sexual Harassment Awareness Session. FSU.
Big Rapids, MI
Fall 1999

Waste Reduction and Energy Efficiency Workshop. Michigan Department of Environmental Quality.
Livonia, MI
November 10, 1999

Professional Architectural Work

Addition to Rogalke Residence
Lowell, Michigan
June-July 2003

Alber Lake House Renovation Concepts
Rockford, Michigan
August 2001

Shangraw Residence

Sparta, Michigan
June-August 2001
Robinhood Airport Expansion Presentation Drawings
Big Rapids, Michigan
May 2001
Shiawassee County Community Mental Health Center Preventive Maintenance Program Development
Owosso, Michigan
Summer 1999

Workload:

Normal teaching load follows the standards of the College of Technology and is 24 credits and/or 36 contacts per year. On a yearly basis 1-3 faculty have been assigned overloads ranging from 1-4 credits as indicated on the table below.

Overload Assignments			
Semester	**Faculty**	**Class**	**Credit Hours**
Fall 2000	Gary Gerber	ARCH 250	3 credits
Winter 2001	Vicky Hardy	FMAN 499	2 credits
Winter 2001	Mel Kantor	FMAN 432 + ARCH 280	4 credits
Fall 2002	Gary Gerber	ARCH 109	2 credits
Winter 2003	Vicky Hardy	FMAN 499	2 credits
Winter 2003	Mel Kantor	FMAN 431	3 credits
Fall 2004	Diane Nagelkirk	FSUS 100	1 credit
Winter 2005	Diane Nagelkirk	ARCH 244	3 credits
	Joe Samson	FMAN 321	3 credits

50 % release time was awarded to one faculty member during the winter semester of 2003 to develop a B.S. in Architecture and a Master of Architecture curriculum proposal.

Recruitment:

All recruiting and hiring of program faculty follow the University's Affirmative Action Plan and commitment to Equal Employment Opportunity. Recruitment goals and methods are used that attract large, diverse applicant pools that result in the selection and hiring of qualified, talented faculty. Positions are posted with various off-campus organizations (publications and websites) that reach markets within Michigan and beyond.

Qualifications for new faculty include: Bachelor of Architecture (Master of Architecture preferred) and Masters in related area (or pursuit of); professional licensure; architectural practice experience (minimum 5 years); teaching or academic experience preferred.

Orientation:

In addition to the university activities during faculty orientation week prior to the fall semester, the department works closely with new faculty through mentoring, course collaboration and classroom observation.

Reward Structure:

The reward structure of the department follows the Promotion and Merit Policy of the College of Technology. The policy has limitations in terms of portfolio preparation guidelines, identification and recognition of quality criterion and candidate characteristics, accuracy and consistency in assessing candidate characteristics and impartial selection of candidates.

Salary structure is competitive with the profession and does not have an unfavorable impact on recruiting and retaining faculty.

Graduate Instruction:
NA

Adjunct Faculty:
NA

Service to Non-majors

Prepared by: Diane Nagelkirk

General Education courses include:

ARCH 244, Historical Development of Western Architecture

- This course is a cultural enrichment elective that draws a large number of students from all colleges and programs. One section of 30 students is offered in the fall semester and 2 sections of 30 students each is offered in the winter semester. The quality and contributions that these non-major students bring to the class is high and valuable.

Non-general education courses include:

ARCH 110, Computer Graphics in Architecture/HVACR

- This course is taught for the HVACR Department. Two sections are offered in the winter semester.
- Ongoing discussions with the HVACR Department assure relevant course content and delivery.

The Architectural Technology program plans to maintain the current level of service courses.

Degree Program Cost and Productivity Data

Prepared by: Diane Nagelkirk

Architectural Technology and Facilities Management Department										
		Student Credit Hours			Full Time Equated Faculty			SCH/FTE		
Prefix	Year	Fall	Winter	F+W (a)	Fall	Winter	Avg F+W (b)	Fall	Winter	F+W (a/b)
ARCH	2000-2001	0.00	916.00	916.00	0.00	4.50	2.25		203.56	**407.11**
ARCH	2001-2002	877.00	860.00	1,737.00	5.06	4.86	4.96	173.41	176.85	**350.20**
ARCH	2002-2003	760.00	580.00	1,340.00	5.14	4.58	4.86	147.89	126.56	**275.67**
ARCH	2003-2004	900.00	770.00	1,670.00	4.53	5.10	4.82	198.46	150.98	**346.65**

Assessment and Evaluation

Prepared by: Diane Nagelkirk

Program Learning Outcomes include:

The mission of the Architectural Technology Associate Degree program is to provide students with an architectural foundation of concepts, skills and values necessary to, upon completion of the program, enter the employment market at an entry-level position in architecture and professions related to the built environment or continue education for a baccalaureate or advanced degree in professions related to the built environment. Assessment that measures the fulfillment of this mission include:

- Student demonstration of the ability to think effectively and develop critical thinking skills partnered with vocational readiness.
- Student demonstration of awareness, knowledge and/or competency in course specific skills and content.
- The ability of students to successfully find employment and/or continue their education.

Program Assessment Mechanisms include:

- Annual Faculty SAI's. Currently results are reviewed by the Dean of the COT and forwarded to the individual faculty member.

- Annual Student Exit Survey. For the past 12 years this survey has been distributed to the graduating class for program assessment and relevancy. Section 2 of this report contains the survey and results for the graduating class of 2005. Results are reviewed by faculty and when appropriate student suggestions and concerns are implemented.

- Exit Survey. Surveys are distributed to students who choose to withdraw from the program. The purpose of this survey is to determine the reason for withdrawal and any connection and relevancy to program instruction and/or curriculum.

- Student focus groups. A focus group discussion, developed and facilitated by department chair, with 2nd year students was implemented in April of 2004. Results of focus group discussion are compiled and reviewed by faculty the following fall and when appropriate student suggestions and concerns are implemented.

- Annual AT Advisory Committee. Program goals and achievements are reviewed along with professional trends and needs to assure program relevancy. Advisory committee input in terms of the changing demands within the architectural profession results in ongoing redefinition of curricular relevancy and flow. In addition, advisory comments regarding the need for an accredited architectural

program in west Michigan results in on-going investigation of advanced degree proposals.

- Direct assessment measures include:
    - Architectural graphics and CAD performance standards are tested in ARCH 109, 102, 203, and 204.
    - Student demonstration of knowledge and skills developed during the two-year period of the program are assessed in ARCH 204.
    - Portfolios: Student preparation of a portfolio of work during the two-year period of the program is assessed in ARCH 216.
    - Administer and review periodic alumni surveys created and generated by AT program faculty.
    - Review alumni surveys provided by the University.

Application of assessment includes:

- Annual review of successes and failures is used to evaluate course content for relevancy and flow.
- Annual review of program vision and mission statement to address changing demands of the architectural profession results in on-going investigation of an advanced degree proposal.
- Faculty involvement in professional associations, consulting, and pedagogical research, results in ongoing program curricular review and redefinition.

Administration Effectiveness

Prepared by: Diane Nagelkirk

Administrative and Clerical Support:

The faculty of the Architectural Technology & Facility Management department has the following concerns regarding administrative and clerical support:

- In addition to the critical need to appoint a Dean for the College of Technology, we feel the Dean's primary function should be visionary and futuristic rather than focusing on day to day operational issues. The absence of consistent leadership at the College level has impacted the program's ability to expand, to embrace vision and capitalize on timely opportunities.
- We feel the college does not operate in a cost-effective, comprehensive way in terms of even distribution of clerical support, building and space utilization, technology and equipment.
- The current 50% clerical support for the ATFM Department is not adequate and does not meet department goals of maintaining professionalism and serving student needs. A full-time presence of clerical support is necessary to run the department in a consistent, efficient manner. Many office management activities are overlooked without the presence of full-time clerical support.

Class and Teaching Schedules:

Program class and teaching schedules are prepared by the Department Chair. The intent is to maximize room utilization and build student schedules that are flexible and distribute classes evenly throughout the day and week. Block schedules are developed and used to ensure that class sizes are evenly balanced and guarantee that students will successfully complete the required semester courses.

Facilities and Equipment

Instructional Environment

Prepared by: Gary Gerber

The Facility Management Program primarily shares classrooms and laboratories with the Architectural Technology Program in the Swan Building (SWN). There is only one classroom that is designated for the Facility Management program—Swan 111. The classrooms that are shared with the Architectural Technology program are predominately Architectural Technology classrooms and have been reviewed in the Architectural Technology Academic Program Review report. Funding for the shared classrooms is done through the Architectural Technology program so those resources are not reviewed in this report.

The program has two laboratory courses: FMAN 309 — Computer Applications for Facility Management (1 section/year), and FMAN 499 — Capstone Assessment Thesis. The remaining program courses are lecture courses and normally taught in a standard classroom. At times lecture courses do utilize computer laboratories as needed by the instructor to best communicate the concepts in the course.

The following facilities are dedicated to the FM Program:

Facility	Capacity	Use	Condition	Lighting	Air	Floor	Walls	Windows	Storage	Ceiling
Swan 111	26 plus 4 computer work stations	Lecture with overhead instructional monitor	Good	Dimmable2x4 fluorescent	None	Carpet: Good	Painted Block: stained	Operable: Fair Condition	Shelves: adequate	Stained

Other classrooms in the Swan Building and elsewhere are used if the dedicated FM classroom or AT classrooms are not available or if the section sizes exceed their capacity.

SWN 111 is not adequate for its current usage. The space is crowded and awkwardly configured. It could stand to be updated with an overhead projection system replacing the TV monitor system.

Equipment needs primarily fall into the computer and related equipment area. Currently, AT Program computers are shared with the FM Program. At times this creates technical problems due to the specialized facility management software, which may conflict with other software programs. In addition, scheduling of class times and non-scheduled computer time becomes difficult. Currently, four computers are available in SWN 111 for student use, which is inadequate.

In addition, a dedicated computer lab with 16 stations and necessary printers would be a major asset to the program's success. We have over $250,000 worth of FM software, which has been donated to the program, and conflicts occur during its use. A new lab with the proper computers should alleviate the problems.

Equipment maintenance has been fairly consistent in recent years. There has been a consolidation of computer support services. Several years ago the Business Technology Computer Consortium was formed and implemented. A further consolidation was implemented in the past two years but technical support has remained fairly consistent. FM Faculty continues to put more and more assignments and reference material electronically accessible to students on the computer network. Students will print off a copy of this material adding to the paper consumption. Another major paper consumer is information found on the web both school and non-school related. Students tend to hit the print button without thinking through whether the copy is really needed or not. Some of the paper consumption is due to non-AT\FM student usage. Signs have been posted to attempt to alleviate this problem.

Computer Access and Availability

Prepared by: Gary Gerber

There currently is a marginal supply of computer hardware and software resources allocated to the program—4 computers and a teaching station. The AT computer resources are in much better condition which will make the FM problem less of an issue. The two computer labs SWAN 205 and SWAN 212 offer a total of 42-student computers and 2 teaching stations. The labs are open to student use when they are not scheduled for classes and the students take advantage of this opportunity. These resources will have to be shared with the AT students. Even during scheduled lab classes, most of the faculty allows students to use an open computer if they don't disrupt classroom activities. If both AT labs are occupied the 4 computers in the SWAN 111 offer a back up. These computers are approximately 2 years old so they are still in pretty good condition. Students can also use the FLITE computers. There are a number of computers on the 2nd floor of FLITE that have AutoCAD on them. FLITE also offers MS Office on its computers, which allows students to write their reports. This allows for computer access during hours when SWAN building is closed. FLITE does not offer any specialized FM software.

Our computer labs are open from 8 am until 11 pm Monday through Thursday. Saturday and Sunday they are open from Noon until 6 pm. The labs are generally closed on holiday weekends and weekends during spring break. The AT program hires student workers and they have keys to access supplies and equipment.

The following architectural and facility management software is loaded on program computers: AutoCAD 2004, Accurender, Architectural Graphic Standards, FM Systems, Visio, Giza, Timberline Cost Estimating, MasterSpec Specifications, and Microsoft Office. Computer software is fairly up to date as far as word processing, spreadsheets, presentation software and AutoCAD. The university has a Microsoft Office site license and the COT has a site license for all Autodesk products.

There currently isn't an acquisition plan to address all the needs regarding computer software and hardware. Equipment used in the AT\FM classrooms is fairly consistent with current practice and therefore representative of work sites for which students are being educated. In the past, the majority of the FM equipment was funded using year-end funds. Due to the ever-changing nature and rapid growth of technology, hardware and software equipment is required to be updated on a yearly basis. Therefore, in order to maintain state of the art equipment consistent funding must be available on a yearly basis. Currently much of the FM software is made available through donations.

The efficacy of online services is generally good. A couple faculty members use WebCT and it generally works well. Where online service falls down is with student e-mail service. A handful of students in each class have trouble getting their FSU I-mail account to work.

Equipment maintenance has been fairly consistent in recent years. There has been a consolidation of computer support services. Several years ago the Business Technology Computer Consortium was formed and implemented. A further consolidation was implemented in the past two years but technical support has remained fairly consistent.

There continues to be a need for a centralized, controlled printing and plotting facility. For the past 16 years, printer and plotters have been part of the "architectural office" concept and readily available for student use within the classrooms. However, AT\FM faculty has found that due to heavy use and inappropriate handling by students, we are continually challenged with major breakdowns and maintenance requests. Printing and plotting equipment is often inoperable and unable to meet the learning needs of the students. Discussion, between the AT Faculty and the TAC computer support organization, is underway to provide centralized printing/plotting facility operated by work-study students on the first floor of the Swan Building. In concept, this facility would be similar to the printing facility found in the FSU business program. Another major issue is the continual increased consumption of paper.

Other instructional technology

Prepared by: Gary Gerber

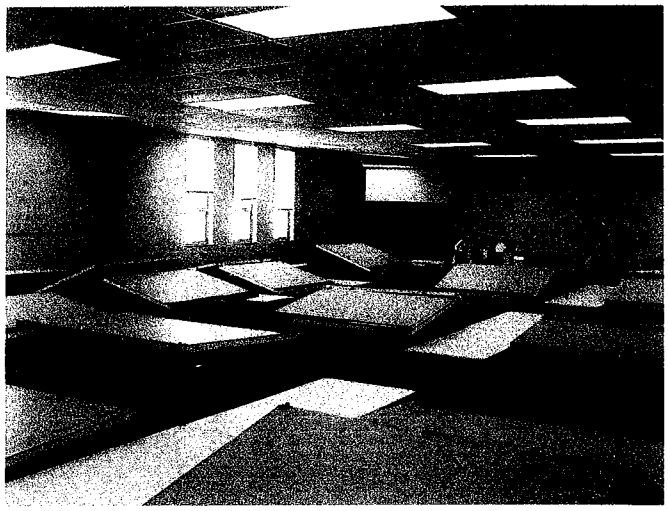
We utilize media distribution for slide projectors and audiovisual equipment. Their service is adequate as far as providing equipment and media that they have available. They could use more funding in purchasing new videos that relate to coursework that is covered by the FM program. At times, when a class meets in a classroom that doesn't have a teaching station and overhead monitor media distribution will provide the needed AV equipment. The program periodically purchases videos and sends them over to media distribution for them to manage the distribution. One drawback with turning over the videos to media distribution is that a request must be made 24 hours in advance in order to have the media delivered. Another drawback with media distribution is that it is difficult to provide a special showing of a video to a student that wants to make up the class where the video was played.

Another area that could be improved is secure reliable digital storage space for student work. Students are given some limited space that they can securely store their electronic work. There are a handful of students that never seem to get access to this storage due to technical issues with the university. Faculty has no ability to assist students except to show them where they can get their username and password.

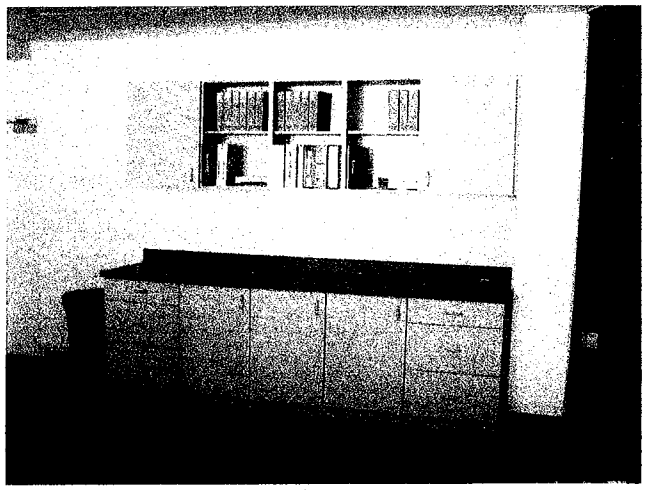
Library Resources

Prepared by: Gary Gerber

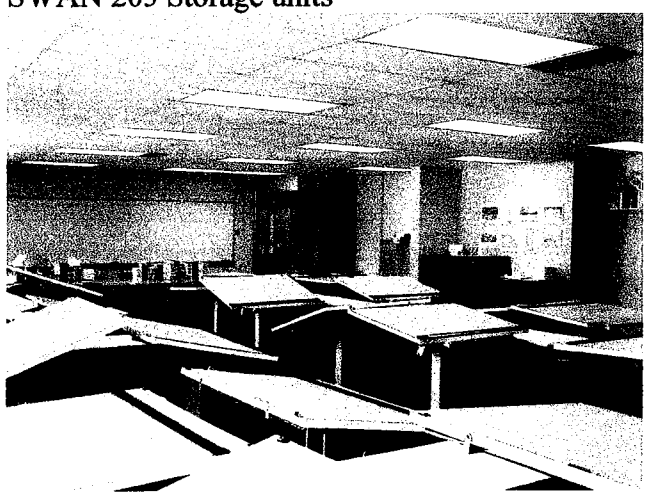
The print and electronic resource available through FLITE is adequate for our program. FLITE keeps drawings of campus buildings on reserve for student research. These drawings need constant maintenance, which currently has to be done by faculty with coordination with physical plant personnel. A better scenario to this situation would be to get digital images for all the buildings on campus and make them available electronically. Another solution would be for library staff to take on the maintenance issue of the drawings and specifications. Both of these scenarios would undoubtedly require funding.



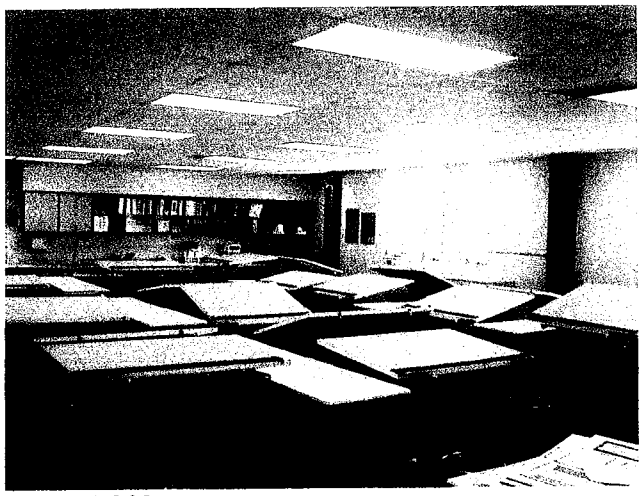
SWAN 203



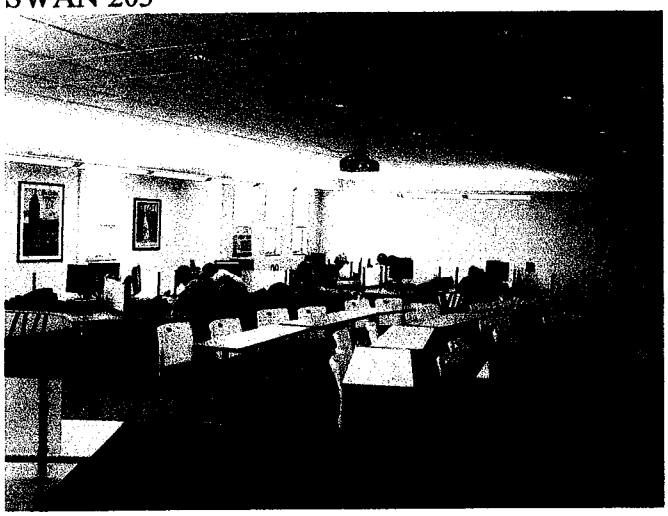
SWAN 205 Storage units



SWAN 203



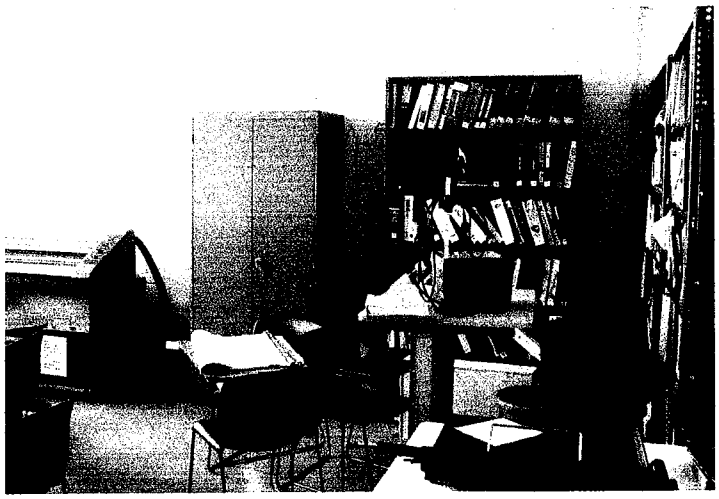
SWAN 203



SWAN 205

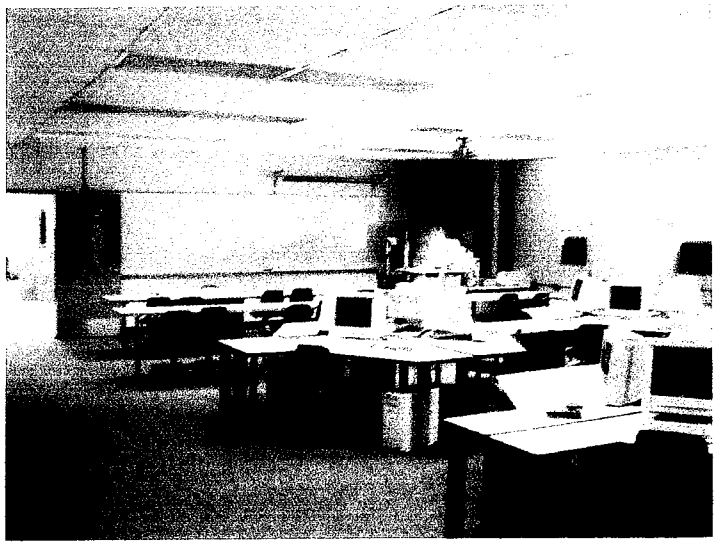
SWAN 205

SWAN 208

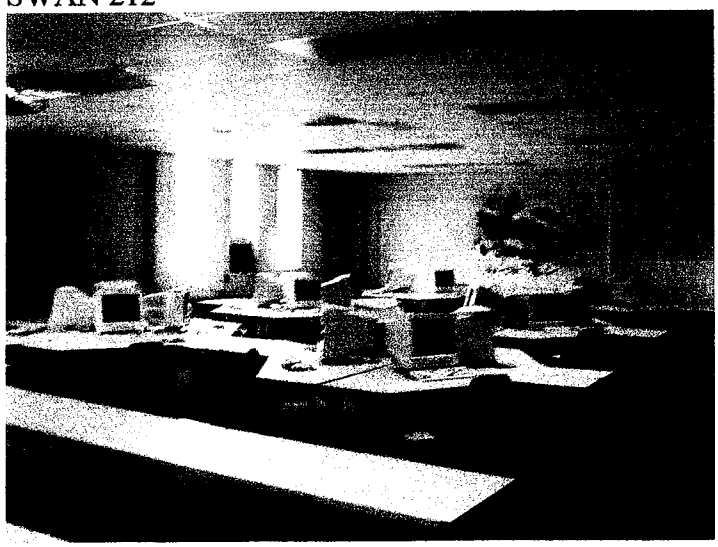


SWAN 208

SWAN 208



SWAN 212



SWAN 212

SWAN 2ND FLOOR CORRIDOR

Conclusions

Relationship to FSU Mission

Prepared by: Diane Nagelkirk

The mission of the Architectural Technology Associate Degree program is to provide students with an architectural foundation of concepts, skills and values necessary to, upon completion of the program, enter the employment market at an entry-level position in architecture and professions related to the built environment or continue education for a baccalaureate or advanced degree in professions related to the built environment.

Through our career-oriented curriculum, the Architectural Technology program directly supports the FSU mission by contributing to the workforce needs of Michigan and by preparing students to be lifelong learners in a rapidly changing and diverse world.

The Architectural Technology program demonstrates continued pursuit of technical, professional education that responds to the changing needs of the architecture profession. As such there is a high demand for graduates of the program that results in a 98% graduate placement rate within the architectural profession throughout the state and nation.

Program Visibility and Distinctiveness

Prepared by: Diane Nagelkirk

In comparison to other similar associate degree programs in the state, the Architectural Technology program is unique by offering a curriculum that prepares the graduate to immediately enter the workforce or to ladder into other four-year programs at Ferris such as Facility Management or Construction Management. Given that all faculty teaching in the program are licensed architects and former and current practitioners in the profession we believe that the 2-year curriculum offers a more comprehensive and realistic view of the architecture profession.

In addition, the program continues to be highly recognized within the architectural profession in the state of Michigan for producing graduates who possess the necessary entry level skills to be effective and successful employees. Survey results indicate that employers value the technical and practice-oriented skills students acquire along with their critical thinking and problem-solving skills.

Employer and alumni survey comments validate the program's depth, uniqueness and enduring record of producing qualified, employable graduates.

Program Value

Prepared by: Diane Nagelkirk

In addition to providing specific needs for the architecture profession, the program serves other programs in the College of Technology and in other Colleges of the University. The 2-year curriculum ladders into the upper division programs of Facility Management and Construction Management. The 2-year associate degree experience provides exceptional foundation skills and knowledge for both programs and ultimately produces an FM or CM graduate who has a unique set of experiences and knowledge that promises career success.

The program also provides service courses to the HVAC program (ARCH 110) and a university-wide general education course (ARCH 244).

The program has an active American Institute of Architecture Student Chapter (AIAS) that brings recognition to the university through their community service efforts and involvement in the professional Grand Valley Chapter of the AIA.

The program has four designated internal scholarships for AT students.

- Gerber Scholarship ($50,000 endowment)
- John Wheeler Scholarship ($1500 annual gift)
- James B. Shane Scholarship ($500 annual gift)
- Schwarzbach Scholarship ($500 annual gift)

Architectural Technology

APRC 2005-2006

section 3 of 3

Enrollment

Prepared by: Diane Nagelkirk

Enrollment in Ferris' Architectural Technology program over the past five years has been relatively consistent. First year enrollment averages within 80% of program capacity with a retention rate of 50%-60%. However, due to increased recruitment efforts first year enrollment for 2005 fall semester is up from previous years with an enrollment of 59 students (90% of capacity).

Retaining first year students has traditionally been a challenge for architecture and architectural technology programs. Students who enroll in such programs often discover, during their first year, that architecture is not a proper fit or realize they are not academically prepared to perform at the required level. Architecture and architectural technology programs are rigorous and time intensive. Many students become disillusioned with the rigors and transfer into other curricula that require less demands and time.

With the addition of an advanced degree in architecture we believe that enrollment and retention would increase. Stronger, more academically prepared students in all probability would enroll with the end result of higher enrollment and graduation rates.

Characteristics, quality and employability of Students

Prepared by: Diane Nagelkirk

During their two year tenure at Ferris, Architectural Technology students mature into sought after architectural technicians. Most AT students come to Ferris with the hope of becoming architectural technicians or architects. Students, who choose to enter the work place upon graduation, find employment in a variety of businesses that include; architecture firms, engineering firms, or with a building contractor or building manufacturer. Students who wish to become licensed architects transfer to schools of architecture. Students who discover that a career in architecture is not a proper fit are often drawn to the FM or CM program which offers many alternative options for a career in the built environment.

Section 2A indicates that in general graduates are satisfied with their AT education. The majority of graduates had a full-time job within 3 months of graduation. Comments indicate that students felt they were qualified for entry level positions and believed the technical focus of the program prepared them to perform well as an entry level employee and provided a sound foundation for potential career advancement. Students who continued from Ferris' program to a school of architecture believed the foundation they acquired in the 2-year associate program provided a solid foundation and preparation to excel in architectural design.

Section 2B indicates that employers are satisfied with AT graduates. In particular, the technical skills and ability to execute construction documents and understand building materials and detailing is most valued by employers.

The Architectural Technology Advisory Committee comments indicate that AT graduates are highly regarded and are properly prepared for the work place.

In conclusion, Ferris' Architectural Technology graduates possess strong technical and problem solving skills; skills that help them to obtain an entry level job and provide a foundation for future career success and continuing education.

Quality of curriculum and instruction

Prepared by: Diane Nagelkirk

Ferris' Architectural Technology curriculum is designed to provide students with practical skills as well as theoretical knowledge of how buildings work and how they are designed and documented. Originally a program dealing primarily with pencil and paper drafting, it has evolved into Architectural Technology with a strong focus on building technology and CAD (computer aided design) that builds proficiency in critical thinking and technical skills.

In general the curriculum content and instructional methods are satisfactory as reported by students, alumni, employers, advisory board members and faculty in Section 2 of this report. However, due to ongoing interest from students, alumni, and employers it is important that we consider the implementation of an advanced baccalaureate degree in architecture. In addition, as the profession evolves and expands it becomes more difficult to impart the necessary knowledge in two years. Additional education would produce a valued graduate that would specifically meet the growing needs of the profession and the built environment. Issues such as sustainability and technology have altered the way we approach the design of buildings and how we interact and respond to the environment. Additional years beyond the 2-year program are necessary to address to these emerging issues.

Student comments indicate all instructors are knowledgeable and skillful architects. However there are concerns regarding individual faculty members that include: inadequate preparation and organization of class, poor explanation of lecture material, inconsistent follow through of course outlines and objectives, and unrealistic homework expectations.

Composition and quality of faculty

Prepared by: Diane Nagelkirk

The six faculty members within the Architectural Technology program are licensed architects, certified facility managers, or both. All members have been or are currently practicing architecture and bring a real-world perspective to the classroom. All are involved in professional organizations and remain current with the latest technological and practice oriented developments. In addition to professional expertise, maintaining current and relevant teaching and learning methodologies is valued and demonstrated through participation in continuing education.

With the retirement of one faculty member after winter semester 2006, the Architectural Technology and Facility Management Department intends to hire a new faculty member that will complement the skills and professional interests of current faculty members. Furthermore we wish to hire an individual who is committed to teaching, dedicated to academia, and able to enhance our vision of providing cutting edge architectural and facility management education.

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

ARCHITECTURAL TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE DEGREE
FALL SEMESTER
Curriculum Guide Sheet

NAME OF STUDENT _____ STUDENT I.D. _____

Total semester hours required for graduation: 66

NOTE: Meeting requirements for graduation indicated on this sheet is the responsibility of the student. The student is also responsible for meeting all FSU General Education requirements as outlined in the university catalog. Your advisor is available to assist you.

			CREDITS	GRADE
FIRST YEAR - FALL SEMESTER (17 semester hours)				
ARCH	101	Architectural Graphics	3	
ARCH	112	Structural Materials and Systems	4	
ENGL	150	English 1	3	
MATH	116	Interm. Algebra/Num. Trigonometry	4	
ARCH	109	Intro to Computer Graphics in Architecture	3	
FIRST YEAR - WINTER SEMESTER (17 semester hours)				
ARCH	102	Architectural Construction Documents 1 (ARCH 101,109,112)	4	
ARCH	115	Interior & Exterior Finishes & Systems (ARCH 112)	3	
ARCH	244	Historical Development of Western Architecture	3	
COMM	105	Interpersonal Communication **OR**		
COMM	121	Fundamentals of Public Speaking	3	
PHYS	211	Introductory Physics 1	4	
SECOND YEAR - FALL SEMESTER (17 semester hours)				
ARCH	203	Architectural Construction Detailing (ARCH 102, 112, 115)	4	
HVAC	337	Mech. & Electrical Systems for Bldgs. (PHYS 211,MATH 116)	3	
ARCH	223	Statics & Structures (ARCH 112, PHYS 211, MATH 116)	4	
ARCH	241	Design Fundamentals (ARCH 244, or instructor's permission)	3	
ENGL	250	English 2	3	
SECOND YEAR - WINTER SEMESTER (15 semester hours)				
ARCH	204	Arch. Const. Documents 2 (ARCH 203, 223, or instr perm)	4	
PSYC	150	Introduction to Psychology	3	
ARCH	216	Professional Practice (sophomore standing)	2	
ARCH	250	Systems Cost Estimating (ARCH 102, MATH 116, or instr perm)	3	
_____	___	Architectural Elective _____	3	

***Applicable for students laddering into Facilities Management.**

ARCH	270	Adv Usage of CAD in Arch (ARCH 109, or instructor's permission)	3
ARCH	285	House - The American Evolution (ARCH 102,241,244)	3
*FMAN	321	Principles of Facilities Management	3

****Applicable for students laddering into Construction Management.**

**CONM	111	Construction Practices	3
**CONM	122	Construction Surveying	3
**CONM	212	Soils and Foundations	3

FERRIS STATE UNIVERSITY
COLLEGE OF TECHNOLOGY

CURRICULUM REQUIREMENTS
ARCHITECTURAL TECHNOLOGY
ASSOCIATE IN APPLIED SCIENCE DEGREE
FALL SEMESTER

TECHNICAL			CREDIT HOURS
ARCH	101	Architectural Graphics	3
ARCH	102	Architectural Constr. Documents 1	4
ARCH	109	Intro to Computer Graphics in Arch.	3
ARCH	112	Structural Materials and Systems	4
ARCH	115	Int. & Ext. Finishes & Systems	3
ARCH	203	Architectural Construction Detailing	4
ARCH	204	Architectural Constr. Documents 2	4
ARCH	216	Professional Practice	2
ARCH	223	Statics and Structure	4
ARCH	241	Design Fundamentals	3
ARCH	250	Systems Cost Estimating	3
Technical Electives			
Architectural Electives			3
Technical Related			
HVAC	337	Mech. & Elec. Systems for Bldg.	3

GENERAL EDUCATION			CREDIT HOURS
Communication Competence			
ENGL	150	English 1	3
ENGL	250	English 2	3
Scientific Understanding			
PHYS	211	Introductory Physics 1	4
Quantitative Skills			
MATH	116	Interm. Algebra/Num. Trigonometry	4
Cultural Enrichment			
ARCH	244	Historical Devel. of West. Arch.	3
Social Awareness			
PSYC	150	Introduction to Psychology	3
General Education Electives			
COMM	105	Interpersonal Communications OR	
COMM	121	Fundamentals of Public Speaking	3

A.A.S. Degree Minimum General Education Requirements in Semester Hours:

Cultural Enrichment Credits - 3
Communications Credits - 6
Social Awareness Credits - 3
Scientific Understanding Credits - 3-4

4/03
pm\cksh04f\arch

(OVER)

FERRIS STATE UNIVERSITY – COLLEGE OF TECHNOLOGY
Architectural Technology and Facility Management Department

Program Review Associate Degree in Architectural Technology
Alumni Survey

Background Information:

1. What year did you graduate with your Associate Degree in Architectural Technology?
   _____

2. Did you attend Ferris immediately after high school?
   a. Yes.
   b. No. Please explain _____

3. How did you learn of Ferris' Architectural Technology program?
   a. High school teacher/counselor.
   b. While attending another program at FSU.
      Name of program: _____
   c. From advisor at other college.
      Name of institution: _____
   d. From visit by FSU faculty at other college.
      Name of institution: _____
   e. Other: _____

4. What attracted you most to Ferris' Architectural Technology program?
   a. That it laddered directly into other 4 year programs at Ferris.
   b. Location of Big Rapids' campus.
   c. Job opportunities.
   d. Technical focus of curriculum.
   e. Would enjoy that type of work.
   f. Other: _____

5. When did you decide to pursue an Architectural Technology related career?
   a. In high school.
   b. While attending another program at FSU.
      Name of program: _____
   c. While attending another program at another college/university.
      Name of institution: _____
   d. Other: _____

6. Have you continued your education after graduation from the Architectural Technology Program?
   a. Yes. Name of program/study: _____
      Name of institution: _____
   b. No.

7. Are you currently affiliated or certified with any of the following organizations? Circle all that apply.
   a. AIA
   b. CSI
   c. LEED
   d. None
   e. Other: _____

8. Do you currently live in Michigan?
   a. Yes. Name of City: _____
   b. No. Name of City, State _____

9. I received the following FSU Degree(s). Please circle all that apply.
   a. Associate of Applied Science in Architectural Technology
   b. Bachelor of Science in Facilities Management
   c. Bachelor of Science in Construction Management
   d. Other (Please specify) _____

Initial Employment Information:

10. How flexible were you geographically when considering job opportunities?
    a. Willing to move anywhere.
    b. Willing to move to certain regions.
    c. Not willing to move to rural areas.
    d. Not willing to move to cities.
    e. Not willing to move outside Michigan.
    f. Not willing to move outside home town.

11. How long after graduation were you offered an Architectural Technology related job?
    a. Had job prior to graduation.
    b. Had job within one month of graduation.
    c. Had job within three months of graduation.
    d. Had job within 6 months of graduation.
    e. Had job within one year of graduation.
    f. Took more than one year.
    g. Other: _____

12. Did you utilize Ferris' Career Placement services prior to graduation?
    a. Yes.
    b. No.

12a. If you answered Yes to the previous question, did you find your first job through Ferris' Career Placement services?
    a. Yes.
    b. No.

13. How would you categorize your first job related to Architectural Technology?
    a. Full time.
    b. Part time.
    c. Temporary or contract.
    d. Other: _____

14. What was your starting annual salary at your first Architectural Technology related job?
    a. Below $20,000.
    b. $20,001-$25,000.
    c. $25,001-$30,000.
    d. $30,001-$35,000.
    e. $35,001-$40,000.
    f. More than $40,000.

15. What was your title at your first Architectural Technology related job?

_____

16. Which of the following best describes your primary function at your first Architectural Technology related job?
    a. CAD/Drafting Technician.
    b. Structural/Mechanical/Electrical Technician.
    c. Specification writer.
    d. Other: _____

17. Which of the following best describes your first place of employment?
    a. Architecture firm.
    b. Architecture and engineering firm.
    c. Engineering firm.
    d. Building Contractor
    e. Other: _____

18. Are you currently employed at your first Architectural Technology job?
    a. Yes.
    b. No. Please state employment history

Current Job Information:

19. Do you still work within the field of Architectural Technology?
    a. Yes.
    b. No.

20a. If yes, which of the following best describes your primary function at your current job?
    a. CAD/Drafting Technician.
    b. Job Captain.
    c. Structural/Mechanical/Electrical Technician.
    d. Specification writer.
    e. Other: _____

20b. If no, why did you choose to work in a field other than Architectural Technology?

21. Which of the following best describes your current place of employment?
    a. Architecture firm.
    b. Architecture and engineering firm.
    c. Engineering firm.
    d. Building Contractor
    e. Other: _____

22. What is your current title? _____

23. What is your current annual salary?
   a. Under $30,000.
   b. $30,001-$40,000.
   c. $40,001-$50,000.
   d. $50,001-$60,000.
   e. $60,001-$70,000.
   f. $70,001-$80,000.
   g. More than $80,000.

Overall Satisfaction with Architectural Technology Degree:
Circle the number that most appropriately identifies your level of satisfaction.

	Not at all	Not very	Neutral	Very	Extremely	Unsure
24. How satisfied are you with the quality of the education you received through Ferris' Architectural Technology program?	1	2	3	4	5	?

Preparation in specific skill areas:
Circle the number that most appropriately identifies how well the Architectural Technology program prepared you for each of the tasks listed.
Consider the preparation as appropriate for an entry level position.

	General Skills:	Not at all	Not very	Neutral	Very	Extremely	Unsure or not applicable
25.	Responsibility, self-management.	1	2	3	4	5	NA
26.	Leadership skills.	1	2	3	4	5	NA
27.	Mathematical skills.	1	2	3	4	5	NA
28.	Written communication skills.	1	2	3	4	5	NA
29.	Oral communication skills.	1	2	3	4	5	NA
30.	Architectural graphic skills.	1	2	3	4	5	NA
31.	Sketching skills.	1	2	3	4	5	NA
32.	Critical thinking and problem solving skills.	1	2	3	4	5	NA
33.	Research skills.	1	2	3	4	5	NA
	Design:						
34.	Ability to understand architectural design principles.	1	2	3	4	5	NA
35.	Ability to transform schematic design drawings into design development drawings.	1	2	3	4	5	NA

		Not at all	Not very	Neutral	Very	Extremely	Unsure or not applicable
36.	Awareness of architectural history.	1	2	3	4	5	NA
	Construction Documents:						
37.	Ability to effectively execute working drawings.	1	2	3	4	5	NA
38.	Ability to understand building materials.	1	2	3	4	5	NA
39.	Ability to detail building materials.	1	2	3	4	5	NA
40.	Ability to understand construction methods and practices.	1	2	3	4	5	NA
41.	Ability to understand mechanical and electrical systems.	1	2	3	4	5	NA
42.	Ability to understand structural design concepts.	1	2	3	4	5	NA
43.	Awareness of environmental issues.	1	2	3	4	5	NA
44.	Awareness of building codes and industry standards.	1	2	3	4	5	NA
45.	Ability to understand specifications.	1	2	3	4	5	NA
46.	Ability to understand cost estimate methods.	1	2	3	4	5	NA
47.	Ability to understand project development phases.	1	2	3	4	5	NA
48.	Awareness of project management.	1	2	3	4	5	NA
49.	Awareness of industry standard references; CSI, ASTM, ANSI, etc.	1	2	3	4	5	NA
50.	Awareness of AIA contract documents.	1	2	3	4	5	NA
	Technical Skills:						
51.	Ability to effectively utilize 2-dimensional CAD software.	1	2	3	4	5	NA
52.	Ability to effectively utilize 3-dimensional CAD software.	1	2	3	4	5	NA
53.	Use of generic software such as Microsoft Office.	1	2	3	4	5	NA

Relevance of specific courses to your career.
Circle the number that most appropriately rates the relevance of each course offered in the Architectural Technology program to what you do now.

		Unimportant	Not very important	Relevant	Important	Very important	Unsure or not taken
54.	Architectural graphics.	1	2	3	4	5	NA
55.	Structural materials and systems.	1	2	3	4	5	NA
56.	Computer graphics in architecture.	1	2	3	4	5	NA
57.	Architectural construction documents.	1	2	3	4	5	NA
58.	Interior and exterior finishes.	1	2	3	4	5	NA
59.	Historical development of western architecture.	1	2	3	4	5	NA
60.	Design principles.	1	2	3	4	5	NA
61.	Architectural construction detailing.	1	2	3	4	5	NA
62.	Mechanical & electrical systems.	1	2	3	4	5	NA
63.	Statics and structures.	1	2	3	4	5	NA
64.	Professional practice.	1	2	3	4	5	NA
65.	Systems cost estimating.	1	2	3	4	5	NA

Program growth:

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Unsure
66.	I believe advanced degrees in architecture at Ferris are a viable concept.	1	2	3	4	5	NA
67.	I would have pursued a Bachelor of Science in Architecture had the degree been offered during my tenure at Ferris.	1	2	3	4	5	NA
68.	I would have pursued a Master of Architecture had the degree been offered during my tenure at Ferris.	1	2	3	4	5	NA
69.	The Western Michigan area is an optimal location for a new architecture program offering a Bachelor of Science in Architecture.	1	2	3	4	5	NA
70.	The Western Michigan area is an optimal location for a new architecture program offering a Master of Architecture.	1	2	3	4	5	NA

OPTIONAL INFORMATION:

Name _____
Address _____
Phone _____ e-mail _____

Comments and recommendations:

Thank you!

FERRIS STATE UNIVERSITY - COLLEGE OF TECHNOLOGY
Architectural Technology and Facility Management Department

Program Review **Associate Degree in Architectural Technology**
Employer Survey

Please rate the overall performance of graduates of the Architectural Technology program in the following areas by circling the appropriate rating for each statement.

	Competencies and Foundation Skills	Poor	Below average	Average	Good	Excellent	Don't know
	General Skills:						
1.	Exhibits an appropriate level of responsibility and self-management.	1	2	3	4	5	NA
2.	Chooses ethical courses of action.	1	2	3	4	5	NA
3.	Demonstrates effective written communication skills.	1	2	3	4	5	NA
4.	Demonstrates effective oral communication skills.	1	2	3	4	5	NA
5.	Possesses adequate mathematical skills.	1	2	3	4	5	NA
6.	Uses critical thinking, problem solving, and decision-making skills.	1	2	3	4	5	NA
7.	Participates as a team player.	1	2	3	4	5	NA
8.	Works well with individuals from diverse backgrounds.	1	2	3	4	5	NA
9.	Acquires, interprets, and uses information effectively.	1	2	3	4	5	NA
	Design:						
10.	Demonstrates understanding of design principles.	1	2	3	4	5	NA
11.	Demonstrates ability to transform schematic design drawings into design development drawings.	1	2	3	4	5	NA
12.	Demonstrates awareness of architectural history.	1	2	3	4	5	NA

	Construction Documents:						
13.	Demonstrates ability to effectively execute working drawings.	1	2	3	4	5	NA
14.	Demonstrates understanding of building materials.	1	2	3	4	5	NA
15.	Demonstrates ability to detail building materials.	1	2	3	4	5	NA
16.	Demonstrates understanding of construction methods and practices.	1	2	3	4	5	NA
17.	Demonstrates understanding of mechanical and electrical building systems.	1	2	3	4	5	NA
18.	Demonstrates understanding of structural building systems.	1	2	3	4	5	NA
19.	Demonstrates awareness of environmental issues.	1	2	3	4	5	NA
20.	Demonstrates awareness of building codes and industry standards.	1	2	3	4	5	NA
21.	Demonstrates understanding of specifications.	1	2	3	4	5	NA
22.	Demonstrates understanding of cost estimate methods.	1	2	3	4	5	NA
23.	Demonstrates understanding of project development phases.	1	2	3	4	5	NA
24.	Demonstrates awareness of project management.	1	2	3	4	5	NA
25.	Demonstrates awareness of industry standard references; CSI, ASTM, ANSI, etc.	1	2	3	4	5	NA
26.	Demonstrates awareness of AIA contract documents.	1	2	3	4	5	NA

	Technical Skills:						
27.	Effectively utilizes 2-dimensional CAD software.	1	2	3	4	5	NA
28.	Effectively utilizes 3-dimensional CAD software.	1	2	3	4	5	NA
29.	Effectively utilizes Office software.	1	2	3	4	5	NA

Comments:

End of survey.
Thank you!

FERRIS STATE UNIVERSITY
College of Technology
Architectural Technology Program

As a student within the Architectural Technology Program, the AT faculty value your opinion and experience in assisting us to evaluate the AT Program. In order to provide quality architectural education at FSU and to implement appropriate curriculum modifications we are asking you to complete the following survey. ***Please do not write your name on this survey.***

STUDENT EXIT SURVEY

1. What is your current GPA?
   A. Less than 2.0
   B. Between 2.0 and 2.5
   C. Between 2.5 and 3.0
   D. Between 3.0 and 3.5
   E. Greater than 3.5

2. How long did it take you to complete the AT program?
   A. 2 years
   B. 2 to 3 years
   C. More than 3 years

2a. If your answer to question 2 was "B" or "C", please circle the correct response(s) that indicate why it took more than 2 years to complete the AT program.
   A. Problems with math
   B. Problems with AT courses
   C. Problems with other technical courses
   D. Problems with General Ed courses
   E. Other _____

3. Did you attend FSU directly from high school?
   A. Yes
   B. No

3a. If your answer to question 3 was NO, what did you do after graduating from high school?
   A. Work
   B. Military
   C. Community college
   D. Other college/university
   E. Other _____

3b. If your answer to question 3 was NO, how long were you out of high school before attending FSU?
   _____ years

4. How influential were the following factors in your decision to attend the AT program at FSU?

	(least influential) 1 2 3 4 5 (most influential)
Family	1 2 3 4 5
Friends	1 2 3 4 5
Location	1 2 3 4 5
Cost	1 2 3 4 5
Reputation of AT program	1 2 3 4 5
Technical emphasis of AT program	1 2 3 4 5
FM Program	1 2 3 4 5
High School counselor	1 2 3 4 5
High School teacher	1 2 3 4 5
Other _____	

5. Would you recommend this program to others?

A. Yes
B. No

5a. If your answer to question 5 was YES, why?

5b. If your answer to question 5 was NO, why not?

6. How meaningful were the following courses? (least satisfying) 1 2 3 4 5 (most satisfying)

ARCH 101 Architectural Graphics	1 2 3 4 5
ARCH 102 Working Drawings 1	1 2 3 4 5
ARCH 203 Architectural Detailing	1 2 3 4 5
ARCH 204 Working Drawings 2	1 2 3 4 5
ARCH 109 Computer Graphics	1 2 3 4 5
ARCH 112 Structural Materials	1 2 3 4 5
ARCH 115 Finish Materials	1 2 3 4 5
ARCH 223 Statics & Structures	1 2 3 4 5
ARCH 241 Design Fundamentals	1 2 3 4 5
ARCH 244 Architectural History	1 2 3 4 5
ARCH 216 Professional Practice	1 2 3 4 5
ARCH 250 Cost Estimating	1 2 3 4 5
HVAC 337 Mech. & Elec. Systems	1 2 3 4 5
ELECTIVE: _____	1 2 3 4 5
ELECTIVE: _____	1 2 3 4 5

(write in name or number of elective(s) taken)

7. What courses do you believe will be the most beneficial in your future employment? (least beneficial) 1 2 3 4 5 (most beneficial)

ARCH 101 Architectural Graphics	1 2 3 4 5
ARCH 102 Working Drawings 1	1 2 3 4 5
ARCH 203 Architectural Detailing	1 2 3 4 5
ARCH 204 Working Drawings 2	1 2 3 4 5
ARCH 109 Computer Graphics	1 2 3 4 5
ARCH 112 Structural Materials	1 2 3 4 5
ARCH 115 Finish Materials	1 2 3 4 5
ARCH 223 Statics & Structures	1 2 3 4 5
ARCH 241 Design Fundamentals	1 2 3 4 5
ARCH 244 Architectural History	1 2 3 4 5
ARCH 216 Professional Practice	1 2 3 4 5
ARCH 250 Cost Estimating	1 2 3 4 5
HVAC 337 Mech. & Elec. Systems	1 2 3 4 5
ELECTIVE: _____	1 2 3 4 5
ELECTIVE: _____	1 2 3 4 5

(write in name or number of elective(s) taken)

8. Considering what you have learned in the AT program, do you believe the amount of work required in this program is . . . . .

A. Too little
B. About right
C. Too much

8a. If your answer to question 8 was A or C, please explain.

9. The academic expectations of the faculty were . . . .

A. Too low
B. About right
C. Too high

9a. If your answer to question 9 was A or C, please explain.

10. How helpful was your AT faculty advisor in the following areas? (Please circle NA if the area does not apply)

(least helpful) 1 2 3 4 5 (most helpful)

Availability	1 2 3 4 5 NA
Advice about registration	1 2 3 4 5 NA
Advice about AT program	1 2 3 4 5 NA
Advice about FSU University services	1 2 3 4 5 NA
Advice about other Arch. Schools	1 2 3 4 5 NA
Other _____	1 2 3 4 5 NA

11. How adequate were the AT classroom and studio facilities in the following areas?

(least adequate) 1 2 3 4 5 (most adequate)

Physical comfort	1 2 3 4 5
Lighting comfort	1 2 3 4 5
Availability of studio work time	1 2 3 4 5
Reliability of equipment	1 2 3 4 5
Professional appearance	1 2 3 4 5
Aesthetic appearance	1 2 3 4 5
Other _____	1 2 3 4 5

12. What are your plans upon graduation from the AT program?

A. Work
B. Continue education
C. A and B
D. Other _____

12a. If your answer to 12 is "B", what degree do you plan to pursue?

A. B.S. in Facilities Management
B. B.S. in Construction Management
C. NAAB accredited architecture degree
D. Other _____

12b. If your answer to 12a is "C", what college or university do you plan to attend?

A. Lawrence Technological University
B. Andrews University
C. University of Detroit-Mercy
D. University of Michigan
E. Other _____

13. If a Bachelor of Science in Architecture were currently available at Ferris State University I would pursue this degree.

(strongly disagree) 1 2 3 4 5 (strongly agree)

14. What are your professional goals for the next 5 years?

15. What suggestions do you have for improving the AT program?

ADDITIONAL COMMENTS:

Thank you.

FERRIS STATE UNIVERSITY - COLLEGE OF TECHNOLOGY
Architectural Technology and Facility Management Department

Program Review **Associate Degree in Architectural Technology**
Student Survey

BACKGROUND INFORMATION: (circle or write in answer)

1. What is your current academic status within the AT program?
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior

2. What is your current GPA? _____

3. How did you enter the AT program?
   a. Directly from high school.
   b. Transferred from another college or university.
      Name of institution: _____
   c. Transferred from another FSU program.
      Program Name: _____
   d. Other: Explain: _____

4. How did you become aware of the Architectural Technology program?
   a. From teacher/advisor at high school.
      Name of high school: _____
   b. From teacher/advisor at other college or university.
      Name of institution: _____
   c. Through career day.
      Explain where. _____
   d. From visit of A.T. Faculty to my high school.
      Name of high school: _____
   e. Other: Explain: _____

5. Were you contacted by a program faculty member prior to first-year summer orientation?
   a. Yes
   b. No

Complete questions 6 through 9 of the survey by writing brief answers.

6. What attracted you to Architectural Technology as a career choice?

7. Why did you choose FSU over other universities or colleges?

8. Are you satisfied with your decision to attend FSU?

   Yes, why?

   No, why not?

9. Are you satisfied with your decision to study Architectural Technology?

   Yes, why?

   No, why not?

PROGRAM INFORMATION:

Please rate the overall performance of Ferris and the Architectural Technology program in the areas listed below. Indicate your response by circling the appropriate number in the scale to the right of each statement. Circle NA if the statement does not apply to you or if you feel you do not have sufficient experience to properly respond.

	Poor	Below average	Average	Good	Excellent	Don't know
COURSES IN YOUR PROGRAM AREA ARE:						
10. Based on realistic prerequisites.	1	2	3	4	5	NA
11. Available and conveniently located.	1	2	3	4	5	NA
WRITTEN OBJECTIVES FOR COURSES IN YOUR PROGRAM:						
12. Are available to students.	1	2	3	4	5	NA
13. Describe what you will learn in the course.	1	2	3	4	5	NA
14. Are used by instructor to keep students aware of their progress.	1	2	3	4	5	NA
TEACHING METHODS, PROCEDURES, AND COURSE CONTENT:						
15. Meet projected student career needs, interests, and objectives.	1	2	3	4	5	NA
16. Provide supervised practice for developing skills.	1	2	3	4	5	NA
PROGRAM FACULTY:						
17. Know the subject matter and occupational requirements.	1	2	3	4	5	NA
18. Are available to provide help when needed.	1	2	3	4	5	NA
19. Provide instruction so it is interesting and understandable.	1	2	3	4	5	NA

	Poor	Below average	Average	Good	Excellent	Don't know
RELATED COURSE FACULTY (such as English, Math, Science, etc.)						
20. Know the subject matter and occupational requirements.	1	2	3	4	5	NA
21. Are available to provide help when needed.	1	2	3	4	5	NA
22. Provide instruction so it is interesting and understandable.	1	2	3	4	5	NA
PROGRAM COMPUTER STUDIOS:						
23. Provide adequate lighting, ventilation, etc.	1	2	3	4	5	NA
24. Include enough work stations for students enrolled in courses.	1	2	3	4	5	NA
25. Are safe, functional, and well maintained.	1	2	3	4	5	NA
26. Are open adequate hours.	1	2	3	4	5	NA
27. Are open when students are most likely to use them.	1	2	3	4	5	NA
28. Are barrier free and accessible.	1	2	3	4	5	NA
OTHER PROGRAM CLASSROOMS:						
29. Provide adequate lighting, ventilation, etc.	1	2	3	4	5	NA
30. Include enough work stations for students enrolled in courses.	1	2	3	4	5	NA
31. Are safe, functional, and well maintained.	1	2	3	4	5	NA
32. Are open adequate hours.	1	2	3	4	5	NA
33. Are open when students are most likely to use them.	1	2	3	4	5	NA
34. Are barrier free and accessible.	1	2	3	4	5	NA
PROGRAM INSTRUCTIONAL EQUIPMENT IS:						
35. Current and representative of industry.	1	2	3	4	5	NA
36. In sufficient quantity to avoid long delays in use.	1	2	3	4	5	NA
37. Safe and in good condition.	1	2	3	4	5	NA
INSTRUCTIONAL MATERIALS (i.e., textbooks, reference books, etc.) ARE:						
38. Current and meaningful to the subject.	1	2	3	4	5	NA
39. Available and conveniently located for use.	1	2	3	4	5	NA
INSTRUCTIONAL SUPPORT SERVICES (i.e., tutoring, lab assistance, etc.) ARE:						
40. Available to meet student needs and interests.	1	2	3	4	5	NA
41. Provided by knowledgeable and interested staff.	1	2	3	4	5	NA
PLACEMENT SERVICES ARE AVAILABLE TO:						
42. Help students identify employment opportunities.	1	2	3	4	5	NA
43. Help students prepare to apply for job applications.	1	2	3	4	5	NA

PROGRAM GROWTH:

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Unsure
44.	I believe advanced degrees in architecture at Ferris are a viable concept.	1	2	3	4	5	NA
45.	I would have pursued a Bachelor of Science in Architecture had the degree been offered during my tenure at Ferris.	1	2	3	4	5	NA
46.	I would have pursued a Master of Architecture had the degree been offered during my tenure at Ferris.	1	2	3	4	5	NA
47.	The Western Michigan area is an optimal location for a new architecture program offering a Bachelor of Science in Architecture.	1	2	3	4	5	NA
48.	The Western Michigan area is an optimal location for a new architecture program offering a Master of Architecture.	1	2	3	4	5	NA

Comments and recommendations:

Thank You!

FERRIS STATE UNIVERSITY - COLLEGE OF TECHNOLOGY
Architectural Technology and Facility Management Department

Program Review Associate Degree in Architectural Technology
Advisory Committee Survey

Please rate the Architectural Technology Program and the overall performance of graduates of the program in the following areas by circling the appropriate rating for each statement.

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Don't know
1.	Overall the AT program meets the current needs of the profession.	1	2	3	4	5	NA
2.	Projected trends of the profession indicate that the current AT program will continue to meet the needs of the profession.	1	2	3	4	5	NA
3.	Demand for graduates of the AT program is as strong as it was 10 years ago.	1	2	3	4	5	NA
4.	Program content is based on performance objectives required for successful entry level employment.	1	2	3	4	5	NA
5.	Program content is responsive and revised to keep current with changing job practices.	1	2	3	4	5	NA
6.	The AT program provides an adequate number of graduates to meet the needs of the profession.	1	2	3	4	5	NA
7.	The graduates of the AT program are adequately prepared to go to work.	1	2	3	4	5	NA
8.	Graduates of the AT program are highly regarded.	1	2	3	4	5	NA
9.	Graduates of the AT program are competitive with graduates of similar programs from other colleges.	1	2	3	4	5	NA
10.	Graduates of the AT program possess the necessary skill base for future needs of the profession.	1	2	3	4	5	NA
11.	Program faculty have adequate academic credentials.	1	2	3	4	5	NA

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Don't know
12.	Program faculty have adequate professional credentials.	1	2	3	4	5	NA
13.	Program classrooms are adequate and representative of the profession.	1	2	3	4	5	NA
14.	Program instructional equipment is current and representative of the profession.	1	2	3	4	5	NA
15.	My place of employment currently employs graduates of the AT program.	1	2	3	4	5	NA
16.	My place of employment would employ graduates of the AT program.	1	2	3	4	5	NA
17.	The AT program is adequately marketed and known among the profession.	1	2	3	4	5	NA
18.	Graduates of the AT program have adequate communication skills (writing and speaking).	1	2	3	4	5	NA
19.	Graduates of the AT program have adequate mathematical and scientific skills.	1	2	3	4	5	NA
20.	Graduates of the AT program have adequate research and analysis skills.	1	2	3	4	5	NA
21.	Graduates of the AT program have an adequate understanding of building systems.	1	2	3	4	5	NA
22.	Graduates of the AT program have an adequate understanding of construction documents.	1	2	3	4	5	NA
23.	Graduates of the AT program have an adequate awareness of architectural history and design.	1	2	3	4	5	NA
24.	Graduates of the AT program have an adequate awareness of professional practice.	1	2	3	4	5	NA
25.	The AT program provides an adequate foundation for continuing education in architecture.	1	2	3	4	5	NA
26.	The AT program provides an adequate foundation for continuing education in construction management or facility management.	1	2	3	4	5	NA

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Unsure
27. I believe advanced degrees in architecture at Ferris are a viable concept.	1	2	3	4	5	NA
28. The Western Michigan area is an optimal location for a new architecture program offering a Bachelor of Science in Architecture.	1	2	3	4	5	NA
29. The Western Michigan area is an optimal location for a new architecture program offering a Master of Architecture.	1	2	3	4	5	NA

Comments and recommendations.

End of survey.
Thank you!

ATAdvisorySurPR05

Mary E. Brayton
20050 N. Davison Drive
Paris, Michigan 49338
Home (231) 592-0570
Office (231) 591-3584
Fax (231) 591-2931

EDUCATION

- Masters in Architecture - College of Architecture and Urban Planning, University of Michigan, 1988
- Bachelor of Science in Architecture - College of Architecture and Urban Planning, University of Michigan, 1984
- Associate Degree in Art - Grand Rapids Junior College, Michigan, 1982

PRESENT POSITION:

- Associate Professor, Architectural Technology and Facilities Management Programs, Ferris State University (2004- Present)
- Assistant Professor, Architectural Technology and Facilities Management Programs, Ferris State University (1997- 2004)

PAST POSITIONS:

- **Project Architect**, Schemata Inc., Grand Rapids, Michigan (1994 – 1997)
- **Project Architect**, Czerew Architects, Grand Rapids, Michigan (1990 to 1994)
- **Intern Architect**, Wassenaar + Czerew Architects, Grand Rapids, Michigan (1989 to 1990)
- **Intern Architect**, DeWinter Associates, Inc., Grand Rapids, Michigan (1989)
- **Intern Architect**, MHB Design Group, Inc., Grand Rapids, Michigan (Summer 1988 &1987)
- **Draftsperson,** Greiner, Inc., Grand Rapids, Michigan (1987)
- **Draftsperson,** Comp – Aire Systems, Inc., Grand Rapids, Michigan (1984 –1987)
- **Draftsperson**, M.C. Smith & Associates, Inc., Grand Rapids, Michigan (1984)

CONTINUING EDUCATION

- Ferris State University
- Northwestern Michigan University
- Northwood University
- American Institute of Architects

PROFESSIONAL REGISTRATION

- **Licensed Architect**, State of Michigan

PROFESSIONAL MEMBERSHIPS

- Grand Valley Chapter – American Institute of Architects (GVAIA) 1997-2004

ACADEMIC ACTIVITIES:

- Faculty Advisor – Women in Technology, Ferris State University. August 2003 – present.
- Judge - Student Drafting / Design Competition sponsored by NAWIC (National Association of Women in Construction). May 2003
- Judge - Regional competition for the Michigan Industrial and Technical Educational Society Craftsman Fair held at Pine River. May 2001
- Judge - The High School Michigan Industrial and Technology Education Society State Skill Competition in Traverse City. May 1999
- Judge - Grand Rapids Home Builders Association, Awards of Excellence 1998-1999
- Judge - MITES (Michigan Industrial and Technology Education Society) High School Competition 1999

BRUCE C. DILG

6710 HUNGERFORD LAKE DR..
BIG RAPIDS, MI 49307
(231)591-2488 (W) (231) 592-8265 (H) EMAIL BRUCE_DILG@HOTMAIL.COM

PROFESSIONAL EXPERIENCE

FERRIS STATE UNIVERSITY *JAN 1987 to Present*
BIG RAPIDS, MI

ASSOCIATE PROFESSOR ARCHITECTURAL TECHNOLOGY

PROGRAM COORDINATOR 1988-1991

COURSES TAUGHT INCLUDE ADVANCED ARCHITECTURAL DETAILING, ADVANCED WORKING DRAWINGS, BEGINNING-ADVANCED AND 3D MODEL/RENDERING IN AUTOCAD, MECHANICAL/ELECTRICAL SYSTEMS FOR BUILDINGS, PROFESSIONAL PRACTICE, CONSTRUCTION MATERIALS, FSUS 100, ARCHITECTURAL DESIGN FOR FACILITY MANAGERS

DEVELOPED BACHELOR OF SCIENCE DEGREE IN ARCHITECTURAL TECHNOLOGY, SUMMER 1995.

ARCOM ARCHITECTS *JUN 1979 to Present BIG RAPIDS, MI*

SOLE PROPRIETOR

BEGAN FIRM WITH PARTNER IN LANDER, WY, CONTINUED WHEN ARRIVING IN MICHIGAN. PROJECTS HAVE INCLUDED JAILS, SCHOOLS, OFFICES, CHURCHES, INTERIORS AND CUSTOM RESIDENCES UP TO 2.5 MILLION DOLLARS.

CENTRAL WYOMING COLLEGE *SEP 1985 to DEC 1986*
RIVERTON, WY 82521

INSTRUCTOR DRAFTING TECHNOLOGY

COURSES TAUGHT INCLUDED ARCHITECTURAL DRAFTING, SURVEYING, STRUCTURAL DESIGN, ENGINEERING GRAPHICS AND AUTOCAD

JOHN HACKLER AND CO. ARCHITECTS *1967 to 1969, 1971 to 1979*
PEORIA, IL 61602

SENIOR ASSOCIATE - PRODUCTION MANAGER

PROJECT MANAGER ON SEVERAL AIA AWARD WINNING PROJECTS INCLUDING NATIONAL AIA/ALA BIANNUAL AWARD FOR EXCELLENCE.

COMPONENT BUILDING SYSTEMS *1970 to 1971*
CHICAGO, IL

RESPONSIBLE FOR DEVELOPING EXTERIOR WALL DETAILS ON JOINT VENTURE OF PARIS ARCHITECTS, CHICAGO CONTRACTOR AND CONSULTING ENGINEERS ON AMERICANIZATION OF 1967 REYNOLDS ALUMINUM AWARD WINNING PROJECT IN ROUEN, FRANCE.

SCHMIDT, GARDEN AND ERIKSON ARCHITECTS *1970*
CHICAGO, IL

RESPONSIBLE FOR DEVELOPING EXTERIOR WALL DETAILS ON 40 MILLION DOLLAR HOSPITAL IN INDIANAPOLIS, INDIANA.

PROFESSIONAL EXPERIENCE (cont)

ILLINOIS CENTRAL COLLEGE *1968, 1969*
EAST PEORIA, IL
ADJUNCT INSTRUCTOR OF ARCHITECTURAL BLUEPRINT READING.

RICHARD ENGBERG AND ASSOC., CONSULTING ENGINEERS *1964 to 1967*
PEORIA, IL
INITIAL DRAFTING JOB, TURNED INTO FULL TIME DESIGNER OF HVAC AND PLUMBING SYSTEMS UP TO 150 TON ABSORPTION UNIT SYSTEMS.

REGISTRATIONS

REGISTERED PROFESSIONAL ARCHITECT - ILLINOIS, WYOMING, MICHIGAN

NATIONAL COUNCIL OF ARCHITECTURAL REGISTRATION BOARD CERTIFIED

REGISTERED TEACHER 6-12, WYOMING, ILLINOIS

EDUCATION

FERRIS STATE UNIVERSITY *1987 to 1993*
BIG RAPIDS, MI 49307
MASTER OF SCIENCE OCCUPATIONAL EDUCATION/DISTINCTION

UNIVERSITY OF ILLINOIS SCHOOL OF ARCHITECTURE *1970*
CHICAGO, IL

BRADLEY UNIVERSITY *1961 to 1965*
PEORIA, IL 61602
BACHELOR OF SCIENCE INDUSTRIAL EDUCATION

PRESENTATIONS/PUBLICATIONS

INNOVATIONS IN BUILDING DESIGN COLLECTIVE BARGAINING SEMINAR, MICHIGAN STATE BUILDING AND CONSTRUCTION TRADES COUNCIL, JAN 1989

STRUCTURAL FRAMING SEMINAR BUILDING INSPECTORS OF NORTHWESTERN MICHIGAN, JAN 1990

STRUCTURAL FRAMING SEMINAR BUILDING INSPECTORS OF SOUTHWESTERN MICHIGAN, APR 1990

C.A.D. IN ARCHITECTURE A.T.E.A. CONFERENCE, NOV 1990

ADVANCED AUTOCAD FOR HIGH SCHOOL TEACHERS FERRIS STATE UNIVERSITY, OCT 1994, 1995 *3D AUTOCAD METHODS AND ENHANCEMENTS,* PRESENTED BY **BRUCE DILG** AND **GARY GERBER,** ASSOCIATE PROFESSORS IN THE AT/FM DEPARTMENT NOV 2000

CHANGES IN ARCHITECTURE TUBELITE/INDAL SALES CONFERENCE, AUG 1993

STUDENT MOTIVATION DELTA SIGMA PI BUSINESS FRATERNITY, NOV 1993

WHAT GRADUATES DON'T KNOW SIDEBAR TO "THE SCHOOLS: HOW THEY'RE FAILING THE PROFESSION (AND WHAT WE CAN DO ABOUT IT)" BY MICHAEL CROSBIE, PROGRESSIVE ARCHITECTURE, SEP 1995

PROVIDING THE OPTIMAL LEARNING ENVIRONMENT PRESENTATION FOR CENTER FOR TEACHING AND LEARNING, FERRIS STATE UNIVERSITY, ON HOW CLASSROOMS CAN BE MOST CONDUCIVE TO COMFORT OR LEARNING. JAN 1999

MANIPULATE YOUR SPACE: TAKE CHARGE OF THE PHYSICAL CLASSROOM
MARCH 4. 1999 PRESENTATION TO CENTER FOR TEACHING AND LEARNING, FERRIS STATE UNIVERSITY.

BARN SILO HOUSE NATIONAL TELEVISION PROGRAM ON HGTV FEATURING THE CHEESEBROUGH HOUSE DESIGNED BY BRUCE DILG.

TEXT REVIEWER, THE ARCHITECT'S HANDBOOK OF PROFESSIONAL PRACTICE, STUDENT ADDITION SUMMER 2001

CROSS-SHAPED HOUSE FITS TO A "T" FEATURE ARTICLE ABOUT THE DILG RESIDENCE, DESIGNED BY BRUCE DILG, WRITTEN BY DR. ROGER GREEN, PHD, IN THE JULY.28, 2002 GRAND RAPIDS PRESS

INSTRUCTOR, COLLEGE OF TECHNOLOGY 2003 SUMMER TECHNOLOGY CAMP

DEVELOPED PROBLEM AND TAUGHT STUDENTS PARTICIPATING AT FERRIS AS PART OF MARTIN LUTHER KING/ROSA PARKS PROGRAM.

PROFESSIONAL ACTIVITIES

GERMANTOWN HILLS PLANNING COMMISSION - CHAIRMAN 1976/77

PEORIA SECTION AIA - PRESIDENT 1977

NCARB DESIGN EXAM EVALUATOR - CHERRY HILL, NJ - JUL 1978

LANDER PLANNING COMMISSION - VICE PRESIDENT 1985/86

JUDGE - MICHIGAN ASSOCIATION VOCATIONAL INDUSTRIAL CLUBS OF AMERICA - MAY 1987

A/E/C CONFERENCE - WASHINGTON, DC - JUN 1987

INSTRUCTOR - AUTOCAD FOR FERRIS INSTRUCTORS - FALL 1987

INSTRUCTOR - AUTOCAD SEMINAR - MAY 1988

TEACHING THINKING SKILLS WORKSHOP - FERRIS STATE UNIVERSITY - BIG RAPIDS, MI - SEP 1990

AMERICAN COLLEGIATE SCHOOLS OF ARCHITECTURE TECHNOLOGY CONFERENCE - HARVARD UNIVERSITY -

CAMBRIDGE, MA - FEB 1991

INSTRUCTOR FSU FACULTY AutoCAD - AUG 1991

A/E/C CONFERENCE - DALLAS, TX - JUN 1992

MEMBER - AMERICAN COLLEGIATE SCHOOLS OF ARCHITECTURE - 1992,93

MONDAY NIGHT TECHNOLOGY INSTRUCTOR - 1993,94,95,96

NEOCON - CHICAGO, IL - JUN 1993

AIAS STUDENT CHAPTER ADVISOR - 94/94, 95/96, 96/97

AAHE FORUM ON EXEMPLARY TEACHING (SELECTED REPRESENTATIVE) - WASHINGTON, D.C. - MAR 1995

AutoCAD TRAINING - HERMAN MILLER CORPORATION - HOLLAND, MI - JUL 1988

AIA CONDOC SEMINAR - BALTIMORE, MD - DEC 1989

AutoCAD TRAINING - MID MICHIGAN ENGINEERS, BIG RAPIDS, MI - FEB 1989

SPECIFICATION CONSULTANT - PROGRESSIVE ARCHITECTS - GRAND RAPIDS, MI JUL 1989

CAD EVALUATION CONSULTANT - SVERDRUP CORPORATION - ST. LOUIS, MO. AUG 1989

REVIEWER - STUDENT OCCUPATIONAL COMPETENCY ACHIEVEMENT TEST, NOCTI - JAN 1990

JUDGE ASSOCIATED BUILDING CONTRACTORS CONSTRUCTION AWARDS PROGRAM - 1989 thru 2004

PRIVATE ARCHITECTURAL PRACTICE (ARCOM ARCHITECTS) SINCE 1979

HARVARD UNIVERSITY GRADUATE SCHOOL OF DESIGN, JUL 1996 - HOW TO AVOID BUILDING ENVELOPE PROBLEMS

M.I.T.E.S. EDUCATION AWARDS PROGRAM - REGIONAL JUDGE 1996,1997, STATE JUDGE 1997

M.I.T.E.S STATE SKILL COMPETION JUDGE – MAY 1999

CRITICAL THINKING FACULTY SUMMER INSITITUTE, DR. RICHARD PAUL – JULY, 2000

AUTOCAD 14-2000 UPGRADE 2 DAY SEMINAR – SEATTLE,WA, AUGUST 2000

M.I.T.E.S REGIONAL CRAFTSMAN FAIR – MAY 2001

A.I.A. NATIONAL CONVENTION – DENVER, COLORADO, MAY 2001

SIX DEGREES OF COLLABORATION CONFERENCE – A.I.A. HEADQUARTERS, WASHINGTON, D.C., APRIL, 2002

EVALUATOR – TECHNICAL/PROFESSIONAL WRITING CURRICULUM PORTFOLIO PRESENATIONS, MAY 2002

A.I.A. NATIONAL CONVENTION – SAN DIEGO, CALIFORNIA, MAY 2003

REVIT PARAMETRIC MODELING SOFTWARE TRAINING – JULY, 2003

A.I.A. NATIONAL CONVENTION – CHICAGO, ILLINOIS, JUNE 2004

A.I.A. NATIONAL CONVENTION – LAS VEGAS, NEVADA, JUNE 2005

T.A.P. CONFERENCE – LAS VEGAS, NEVADA, JUNE 2005

RECOGNITIONS

WHO'S WHO IN THE MIDWEST - 1979

WHO'S WHO IN THE WEST - 1985

CERTIFICATE OF RECOGNITION, FERRIS STATE UNIVERSITY BOARD OF CONTROL, MAY 1993
FOR ACHIEVING NATIONAL RECOGNITION AS A RESULT OF HIS SUPERVISING STUDENTS IN THE RENOVATION OF RESIDENTIAL HOUSING FOR THE BENEFIT OF HABITAT FOR HUMANITY THUS ENHANCING THE ACADEMIC REPUTATION OF THE UNIVERSITY

DISTINGUISHED TEACHING AWARD - MILWAUKEE SCHOOL OF ENGINEERING – 1997

OUTSTANDING WORKMANSHIP AWARD – ABC CONTRACTOR ASSOCIATION – IMMANUEL LUTHERAN CHURCH - 2005

UNIVERSITY COMMITTEE ACTIVITIES

CONSTRUCTION DEPARTMENT COMPUTER COMMITTEE

COLLEGE OF TECHNOLOGY CURRICULUM COMMITTEE

PROGRAM COORDINATORS COMMITTEE

UNIVERSITY MASTER PLAN COMMITTEE

INTERNAL COMMUNICATION COMMITTEE

SYMPHONY (COMMUNITY BUILDING) COMMITTEE

UNIVERSITY SIGNAGE COMMITTEE

CENTENNIAL DINING ROOM COMMITTEE

UNIVERSITY RECREATION DIRECTOR SEARCH COMMITTEE - CHAIR

UNIVERSITY WELCOME CENTER STUDY COMMITTEE - CHAIR

UNIVERSITY GENERAL EDUCATION EVALUATION COMMITTEE

COMPUTER INFORMATION SYSTEMS PROGRAM REVIEW COMMITTEE

OTHER UNIVERSITY/CIVIC ACTIVITIES

UNIVERSITY THEATRE (ACTING)

COMMUNITY THEATRE (ACTING)

COMMUNITY BIG RAPIDS ARTS CHORALE

UNIVERSITY MENS GLEE CLUB

BIG BROTHERS/BIG SISTERS

PARTNERS IN EDUCATION - BIG RAPIDS HIGH SCHOOL

FSU FOOTBALL SCOREBOARD OPERATOR

MECOSTA/OSCEOLA MATH SCIENCE CENTER/RESEARCH PROJECT MENTOR

YOUNG LIFE - BOARD MEMBER

MECOSTA/OSECOLA MATH SCIENCE CENTER - ARCHITECTURAL DESIGN FOR GIFTED SENIORS

HOST FAMILY – FERRIS STATE INTERNATIONAL STUDENT – 2003-2005

FERRIS FESTIVAL SINGERS – PRESIDENTIAL INAUGURATION – 2003

FERRIS STATE CRITICAL THINKING INSTITUTE - 2005

REFERENCES

MS. MARY BRAYTON, A.I.A.
FERRIS STATE UNIVERSITY
BIG RAPIDS, MI 49307
(231) 592-0570 (H) (231) 591-2370

MR. DAVID HANNA, PE
FERRIS STATE UNIVERSITY
BIG RAPIDS, MI 49307
(231) 591-2680

DR. GUNDER MYRON
11342 ROYAL RD W
STANWOOD, MI 49306
(231) 972-7405

MR. MITCH LECLAIRE, PE
915 CHERRY
BIG RAPIDS, MI 49307
(231)796-0736

DR. RICHARD STERN
21095 WOODWARD
BIG RAPIDS, MI 49307
(231) 796-2587

GARY R. GERBER AIA, CSI, USGBC, CDT, LEED AP
ASSOCIATE PROFESSOR
FERRIS STATE UNIVERSITY
JOHNSON 208
BIG RAPIDS, MI 49307

EDUCATION:

Ferris State College 1975
Big Rapids, MI
School of Technology
Associate Degree in Architectural Drafting

University of Michigan 1978
Ann Arbor, MI
School of Architecture
B.S. in Architecture

Grand Valley State University 1995
Allendale, MI
School of Business
Masters in Business Administration

WORK EXPERIENCE:

Associate Professor
Architectural Technology
Ferris State University
Big Rapids, MI
1989 to present

Gerber Architectural
Architectural consulting
Belmont MI
1989 to present

Gerber Architectural Properties, LLC
Commercial office building development
Belmont MI
2002 to present

Architect and Director of Design Services
Square Real Estate Inc.
Grand Rapids, MI
1985-1989

Architectural Draftsperson
Daverman Associates Inc.

Grand Rapids, MI
1983-1985
Architectural Energy Specialist
Daverman Associates Inc.
Grand Rapids, MI
1980-1982

Building Designer and Construction Foreman
Gerber Construction Co. Inc.
Reed City, MI
1978-1980

Carpenter and Architectural Draftsman
North American Building Systems
Reed City, MI
1972-1978 (part time)

PROFESSIONAL ORGANIZATIONS &REGISTRATIONS:

- Registered Professional Architect
- State of Michigan
- United States Green Building Council
- American Institute of Architects
- Construction Specification Institute
- Certified Document Technician (CDT)
- Leadership in Energy & Environmental Design Accredited Professional (LEED AP)

REAL ESTATE PROJECT EXPERIENCE:

MULTI-UNIT HOUSING—

- Design Arch. - Lexington Suites Motel - Cascade, MI
- Architect - Rivers Edge Condominiums - Big Rapids, MI
- Architect - Heritage Acres Condominiums - Reed City, MI
- Architect - Crosswinds Estates Condominiums - Ludington, MI
- Architect - Pere Marquette Quad cabin - Baldwin, MI

COMMERCIAL & INSTITUTIONAL CONSTRUCTION—

- Architect - Millitary Recruiting Center lease space Main Street Business Center—Grand Rapids, MI
- Architect - Nail Salon lease space Main Street Business Center—Grand Rapids, MI
- Architect - 911 Dispatch Addition – Paris, Michigan
- Architect - Neale Business Center - Reed City, MI
- Architect - Pattie Drugs Addition & Renovation - Baldwin, MI
- Architect - Pioneer Group Production Facility – Big Rapids, MI
- Architect - Michigan Works Office Building - Reed City, MI
- Architect / Owner - Michigan Works Office Building - Baldwin, MI

- Architect - Wexford/Missaukee Family Independence Agency - Cadillac, MI
- Architect - Young Insurance \ Rockford Travel Bldg - Rockford, MI
- Architect - Reed City Public Schools - Weight Room Addn, Storage Additions, Concession Stand - Reed City, MI
- Architect - Nabco Inc. Corporate Office Remodeling - Reed City, MI
- Consultant- Hardwood Grill Restaurant - Restaurant Remodeling - Gruner Prussner and Lloyd - Mishawaka, IN
- Architect - Assessment Center Addition - Eagle Village - Hersey, MI
- Architect - Dining Center Addition - Eagle Village - Hersey, MI
- Architect - Porteous Law Office - Reed City, MI
- Architect - Reed City Fire Department - Reed City, MI
- Architect - Evart Products Material Marshalling Area - Evart, MI
- Architect - The Bagel Beanery - Grand Rapids, MI
- Architect - Kellogg Square Retail Mall - Kentwood, MI
- Architect - Fables Woodland Mall Remodeling - Kentwood, MI
- Architect - Smyrna Bible Church Addition - Smyrna, MI
- Architect - Art Works – Big Rapids, MI
-

RESIDENTIAL—SINGLE FAMILY

- Architect - Dr Alex Tosic Residence – Big Rapids, MI
- Architect - Bill and Ann Coats Residence – Chase, MI
- Architect - Dave Residence (addition & renovation) Big Rapids, MI
- Architect - Jim and Joyce Bradley Residence – Canadian Lakes, MI
- Architect - Gunther Residence – Canadian Lakes, MI
- Architect - Wayne and Carole Richardson Residence – Rockford, MI
- Architect - Jim and Dorothy Heyart cottage addition and renovation– Canadian Lakes, MI
- Architect - Jerry and Marcy Springer cottage addition and renovation– Canadian Lakes, MI
- Architect - Crystal River Cottages – Glen Arbor, MI
- Architect - Brower Home – Rodney, MI
- Architect - Battdorf Home renovation – Big Rapids, MI
- Architect - Bengry Home addition and renovation – Evart, MI
- Architect - Wolverton Cottage addition and renovation – Bear Lake, MI
- Architect - Mitch and Carol Swayze Cottage – Beaver Island, MI

CONTINUING EDUCATION:

Gary Gerber, Associate Professor, AIA, CSI, USGBC, CDT, LEED AP

- Success Magazine Investor Education- August 12, 2005 Grand Rapids MI
- Get Motivated Business Seminar- August 2, 2005 Grand Rapids MI
- Place in Mind: Building Public Awareness About Great Communities- June 9, 2005, Grand Rapids MI
- Sketching Workshop with Paul Lasseau- April I, 2005 Big Rapids MI
- Sexual Harassment Awareness Session April 2005 Big Rapids MI
- United States Green Building Council Conference-November 2004 Portland OR

- New Brain Research and Its Application to Career and Technical Education – November 2004 Big Rapids MI
- AIA 2004 National Convention and Design Exposition-June 10-12, 2004 Chicago, Illinois
- United States Green Building Council LEED AP training East Lansing MI-June 2004
- Revit 5 Level 1 Software training –July 2003Grand Rapids MI
- Critical Thinking Institute-May 22-23, 2003 Big Rapids MI
- Construction Documents Technology Program-February 2003 Grand Rapids MI
- United States Green Building Council Conference-November 2002 Austin TX
- Architectural Desktop 3 Level 1 Training (6/02) Grand Rapids MI
- Problem Based Learning-July 16-18, 2001 Big Rapids MI
- AIA 2001 National Convention and Design Exposition- May16-19, 2001 Denver, CO
- Michael Graves-The Design Process- April 27, 2000 Grand Rapids MI
- AEC Systems conference-June 1998 Chicago
- Management Computer Controls-Estimating Software Training (12/96)
- Mich. State University-Construction Cost Estimating (3/96)
- AEC Systems conference-June 1996 Anaheim CA
- AEC Systems conference-June 1994 Washington DC
- AEC Systems conference-June 1993 Anaheim CA

PUBLISHED PROJECTS:

- Kitchen remodeling at Comstock Park Residence - Better Homes and Gardens - July 1985, Grand Rapids Press - September 1986
- Whitford Residence Remodeling - Qualified Remodeler - August 1984, The Family Handyman - April 1984, Redwood News - Fall/Winter 1986
- Hot tub & screen porch at Blue Ridge Residence - Grand Rapids Press - May 1990

MEL KANTOR

4314 MILLPOND DRIVE
ROCKFORD, MICHIGAN 49341
616.866.1151 HOME
231.591.2625 OFFICE
231.591.2931 FAX

PRESENT POSITIONS:

- **Professor,** Architectural Technology and Facilities Management Programs, Ferris State University (1974 - Present)
- **Architectural/Facilities Management Consultant,** Mel Kantor, AIA Architect (Private consulting practice 1984 - Present)

PAST POSITIONS:

- **Department Chair,** Architectural Technology and Facilities Management Programs, Ferris State University (1999 - 2003).
- **Program Coordinator**, Architectural Technology and Facilities Management Programs, Ferris State University (1984 - 1987 & 1992 – 1995, 1996 – 1999)
- **Architect/Principal**, Gienapp/Kantor AIA - Architects (1976 - 1984)
- **Architect/Senior Associate,** Herbert Shaffer Associates, Chicago, Illinois (1967 - 1974)
- **Architect**, James M. Turner & Associates, Architects, Hammond, Indiana (1961 -1967)
- **Draftsperson**, Coleman & Coleman, Architects, Chicago, Illinois (1959 - 1961)

EDUCATION:

- Bachelor of Architecture Degree - University of Illinois, 1960
- Graduate courses in Sociology (18 credit hours) - Central Michigan University

CONTINUING EDUCATION:

(Institutions, Associations, Agencies attended)

- University of Wisconsin
- Federal Emergency Management Agency
- University of Michigan
- National Passive Solar Energy Conferences
- Massachusetts Institute of Technology
- Cad Design Systems, Inc.
- Rensselear Polytechnic Institute
- International Facilities Management Association
- Ferris State University
- AEC Systems, Inc. Conferences
- Lawrence Technological University
- Tennessee Valley Authority
- Northwestern Michigan University
- Microcad Institute
- Oak Ridge Associated Universities
- American Institute of Architects
- Grand Rapids Community College
- Eastern Michigan University
- Archibus FM Corporation
- NEOCON Conferences
- FM Systems
- State of Michigan

A detailed list of courses, conferences, etc. is available on request.

CONTINUING EDUCATION COURSES (1999 – 2005)

7th Annual Waste Reduction and Energy Efficiency Seminar
9/10/1999

Exploring the Eames Design Philosophy
AIA Grand Valley
9/16/1999

International Facilities Management Association
1999 World Workplace Conference and Seminars
10/3 – 5/1999

Leadership in the Profession
AIA Grand Valley
10/21/1999

Michael Graves – The Design Process
4/27/2000

ADA Update and Mock Mediation
Evan Terry Associates, P.C.
5/31/2000

Critical Thinking – Basic Theory and Structure
7/11 – 12/2000

Building Science...Keeping Buildings Healthy and Dry
AIA Grand Valley
10/9/2000

Trends in Occupational Studies Conference
10/27/2000

Leadership in Architectural Education
AIA Grand Valley
1/24/2001

2001 Governor's Conference on Career Development
2/4-6/2001

Slow Design...Tod Williams & Billie Tsieh
AIA Grand Valley
2/21/2001

First Annual Technology & Workplace Conference
AIA Michigan
4/26-27/2001

Sustainable Architecture & Environmental Issues
AIA Grand Valley
5/10/2001

Problem-Based Learning
FSU Center for Teaching, learning and Faculty Develoment
7/16-18/2001

Summer University
Ferris State University
8/2/2001

International Facilities Management Association
2001 World Workplace Conference and Seminars
9/23-25/2001

Sustainable Architecture
AIA Grand Valley
10/21/2001

Trends in Occupational Studies Conference
11/1-2/2001

Teaching Methods...Learning Centered Classroom
11/12,19,26/2001

Tom Buresh Presentation
AIA Grand Valley
11/27/2001

2002 Governor's Conference on Career Development
1/21-23/2002

Computer-Aided Facility Management Workshop
Michigan State University
3/6-8/2002

Eco Logic Design
AIA Grand Valley
5/9/2002

Employee Leadership Development Program
Ferris State University
9/2002 – 4/2003

Lilly Conference on College & University Teaching – North
9/20-21/2002

2002 World Workplace Conference and Seminars
International Facilities Management Association
10/6-8/2002

Total Facility Management Conference
4/21-23/2004

Computer-Aided Facility Management Workshop
Michigan State University
5/18-20/2004

2004 World Workplace Conference and Seminars
International Facilities Management Association
10/16-19/2004

Sketching Workshop with Paul Laseau
Ferris State University
April 1, 2005

ARCHITECTURAL REGISTRATIONS:

- National Council of Architectural Registration Boards Certification (Inactive)
- State of Illinois (Inactive)
- State of Michigan (Active)
- State of Indiana (Inactive)
- State of Ohio (Inactive)

FACILITIES MANAGEMENT CERTIFICATION:

- Certification as a facilities manager (CFM) from the International Facilities Management Association.
- Lifetime CFM granted 2000.

PROFESSIONAL MEMBERSHIPS:

- American Institute of Architects (AIA)
- Michigan Society of Architects (MSA)
- Grand Valley Chapter - American Institute of Architects (GVAIA)
- International Facilities Management Association (IFMA)
- West Michigan IFMA

RECENT PROFESSIONAL ACTIVITIES (Non-Academic):

• Director	Grand Valley Chapter - American Institute of Architects (1985 - 1987) (1993 - 1996) (1998 - 2002)
• Member	Program Committee , GVAIA (1990 - 1992)
• Chairperson	GVAIA Education Committee (1993 - 1996)
• Member	International Facilities Management Educator's Council (Council discontinued around 2000)
• Secretary	International Facilities Management Association West Michigan Chapter (1997 - 2000)
• President	International Facilities Management Educator's Council (1995 - 1997)
• Member	Grand Rapids Downtown Development Board Affordable Housing Task Force (1993 - 1995)
• Member	Urban Institute of Contemporary Art Design Committee (1996 - 1997)
• Architectural Consulting	Residential and commercial architectural, interior design consulting, Michigan and Illinois
• Facilities Management Consulting	Institutional and Corporate Facilities Management Consulting
• President	International Facilities Management Association West Michigan Chapter (1999 - 2001)
• Past President	International Facilities Management Association West Michigan Chapter (2001 - 2003)
• Member	College of Technology Services Committee
• Member	FSU Renaissance Committee
• Leader	FSU Quality Improvement 2000 Instructional Software Installation Team
• Participant	Ferris Employee Leadership Development Program Completed Program April 2003

ACADEMIC ACTIVITIES:

- Sabbatical Research — Low-cost Cadd Systems and Review of Autocad Manuals
- Basic Autocad Seminar — Presented to high school educators (1995)
- Vocational/Industrial Council of America — Wrote and proctored the architectural portion of State of Michigan exam for approximately twelve years (resigned in 1996)
- Developed the curriculum for a Baccalaureate Program in Facilities Management which began in the fall of 1989.

- Judge for the LCC High School Design Competition for seven years until Competition terminated.
- Judge of several VICA Architectural Competitions
- Judge of two Rockford High School Design Competitions
- Developed course in Advanced Architectural Presentation
- In a joint effort with two facilities management colleagues the Facilities Management program received International Facilities Management recognition for meeting their academic standards. The program was one of the initial five, internationally, to receive this honor. Recently received re-accreditation.
- Served as Chair of the B ARCH/M ARCH Committee investigating implementation a professional degree program at FSU – BR and Kendall School of Art and Design.

AWARDS:

- Received 1996 Architectural College Educator of the Year Award at the Lansing Community College Architectural Design Competition
- Received 1996 State of Michigan Vocational Industrial Councils of America Service Award
- 1999 AIA Grand Valley President's Award for extraordinary service to the Profession and the Chapter
- IFMA Lifetime Certified Facility Manager (2000)

CURRICULUM VITAE

DIANE L. NAGELKIRK

2536 Michigan N.E. · Grand Rapids, Michigan 49506 · 616 957-0276

EDUCATION

LAWRENCE TECHNOLOGICAL UNIVERSITY, Southfield, Michigan
Bachelor of Architecture, 1984

LAWRENCE TECHNOLOGICAL UNIVERSITY, Southfield, Michigan
Bachelor of Science in Architecture, 1982

CALVIN COLLEGE, Grand Rapids, Michigan
Sociology Major, 1975-1979

PROFESSIONAL EXPERIENCE

FERRIS STATE UNIVERSITY, Big Rapids, Michigan
Architectural Technology/Facilities Management Program
Department Chair, August 2003-present

FERRIS STATE UNIVERSITY, Big Rapids, Michigan
Architectural Technology/Facilities Management Program
Associate Professor, September 1995-present

FERRIS STATE UNIVERSITY, Big Rapids, Michigan
Architectural Technology/Facilities Management Program
Program Coordinator, Associate Professor, January 1995-August 1996

FERRIS STATE UNIVERSITY, Big Rapids, Michigan
Architectural Technology/Facilities Management Program
Assistant Professor, September 1988-December 1994

WBDC GROUP, INC., Grand Rapids, Michigan
Health Care Division
Associate Architect, August 1987-August 1988

DSO REID ARCHITECTS, INC., Grand Rapids, Michigan
Associate Architect, September 1985-July 1987

VERMURLEN ARCHITECTURE, Grand Rapids, Michigan
Associate Architect, December 1984-August 1985

LAWRENCE TECHNOLOGICAL UNIVERSITY, Southfield, Michigan
Office of Public Relations
Graphic Artist, March 1981-June 1984

PROFESSIONAL REGISTRATION

- Licensed Architect, State of Michigan

PROFESSIONAL ASSOCIATIONS

- American Institute of Architects, Grand Valley Chapter
- Michigan Society of Architects
- National Trust for Historic Preservation
- National Association of Women in Construction
- American Association of University Women

PROFESSIONAL CONSULTATION

- Via Design, Grand Rapids, Michigan
  Design and CAD Consultant
  May 2002-August 2002
  May 2003-August 2003

- Private Design Practice, Grand Rapids, Michigan
  May 1992-present
- Design Pinnacle, Grand Rapids, Michigan
  Design Consultant
  May 1998-August 1998
  May 1999-August 1999
- Dan Vos Construction, Inc., Grand Rapids, Michigan
  Design Consultant
  May 1997- July 1997
- Ferris State University, Big Rapids, Michigan
  Summer Orientation & Registration Advisor
  1993, 1994, 1995
- National Occupational Competency Testing Institute, Big Rapids, Michigan
  Architectural Drafting Test Consultant
  February 1993
- Mel Kantor, AIA, Grand Rapids, Michigan
  Design Consultant
  May 1991-August 1994
- Greiner Inc., Grand Rapids, Michigan
  Computer Aided Design Consultant
  October 1991-May 1992
- Mitch Witkowski, AIA, Grand Rapids, Michigan
  Design Consultant
  May 1991-August 1991
- Universal Forest Products, Inc., Grand Rapids, Michigan
  Structural Design Consultant
  May 1990-August 1990

PROFESSIONAL PRESENTATIONS

- Ferris State University, Architectural Graphics Design Seminar
  AutoCAD Seminar for Educators by Educators, Big Rapids, Michigan
  "AutoCAD 2000 Changes and Architectural Application", October 24, 2000
- Ferris State University, Architectural Graphics Design Seminar
  A Seminar for Educators by Educators, Big Rapids, Michigan
  "CAD Basics II", April 9, 1997
- Ferris State University, Architectural Graphics Design Seminar
  A Seminar for Educators by Educators, Big Rapids, Michigan
  "CAD Basics", October 25, 1995
- Ferris State University, Architectural Graphics Design Seminar
  A Seminar for Educators by Educators, Big Rapids, Michigan
  "How would an Architect do that?", October 25, 1994
- American Technical Education Association
  Back to the Future II Technical Update Conference, Big Rapids, Michigan
  "Drawing Techniques for Communicating Architectural and Building Technology concepts", March 11, 1993
- American Technical Education Association
  Great Lakes Regional Conference, Big Rapids, Michigan
  "Architecture of the 90's: A Vision of an Environmentally and Socially Responsible Built Environment.", November 1, 1990

COURSES TAUGHT

Quarter System

• ARC 101	Architectural Graphics
• ARC 102	Architectural Presentation
• ARC 103	Working Drawings 1
• ARC 112	Structural Materials & Systems
• ARC 109	Intro. to Computer Graphics in Architecture
• ARC 123	Structural Analysis
• ARC 205	Working Drawings 3
• ARC 209	Advanced Computer Graphics in Architecture
• ARC 223	Steel & Concrete Design
• ARC 144	Design Fundamentals

Semester System

• ARCH 101	Architectural Graphics 1
• ARCH 102	Architectural Construction Documents 1
• ARCH 109	Computer Graphics in Architecture 1
• ARCH 209	Computer Graphics in Architecture 2
• ARCH 241	Design Fundamentals
• ARCH 244	Historical Development of Western Architecture
• ARCH 290	Advance Presentation
• ARCH 280	Advance Presentation 2 (model making)

CONTINUING EDUCATION

- Sketching Workshop with Paul Lasseau. (FSU)
  Big Rapids, Michigan
  April 1, 2005
- International Facility Management Association 2004 Conference and Expo
  Salt Lake City, Utah
  October 15-19, 2004
- Rockhurst University
  Project Management
  January 31, February 1, 2004
- AIA 2004 National Convention and Design Exposition
  Chicago, Illinois
  June 10-12, 2004
- Total Facility Management Show and Exposition
  Chicago, Illinois
  April 21-24, 2004
- AIA Grand Valley – CEU Marathon
  Grand Rapids, Michigan
  October 1, 2003
- ACSA Teacher's Seminar – Sustainable Pedagogies and Practices
  Cranbrook Academy of Art
  Bloomfield Hills, Michigan
  June 12-15, 2003
- Creativity Seminar
  Northwood University
  Midland, Michigan
  July 10-13 , 2003
- FSU Critical Thinking Institute
  Big Rapids, Michigan
  May 22-23, 2003
- Revit Fundamentals Seminar
  Grand Rapids, Michigan
  July 2, 2003
- Zero Energy Homes in Michigan Seminar
  Concord Grove Educational Center
  May 3, 2003
- AIA Grand Valley - Sustainable Architecture
  Grand Rapids, Michigan
  October 10, 2001
- Environmental Design Research Conference
  Orlando, Florida
  June 2-6, 1999
- Environmental Design Research Conference
  Orlando, Florida
  June 2-6, 1999

- Survey of Western Architecture, 3 credit hour course
  Medieval Art and Architecture, 3 credit hour course
  University of North Carolina, Chapel Hill, NC
  Winter semester, 2000

- Neo Classical Architecture, 3 credit hour course
  Duke University, Durham, NC
  Winter semester, 2000

- Digital Modeling, 3 credit hour course (on-line)
  Temple University, Philadelphia, PA
  Winter semester, 2000

- Environmental Design Research Conference
  Orlando, Florida
  June 2-6, 1999

- Diversity and Learning Conference
  Philadelphia, Pennsylvania
  November 12-15, 1998

- Ferris State University
  Faculty Summer Institute: Development and Technology of Web-based instruction
  July, 1998

- CareerTrack Seminars
  How to Build a Successful Web Site
  May 8, 1998

- Ferris State University
  Computer Information Systems Management, Master of Science degree program
  CISM 615, Fall 1995
  CISM 700, Winter 1996
  CISM 710, Fall 1996

- Restoration & Renovation Chicago Conference
  October 16-18, 1997

- Pace University
  British Columbia, Vancouver
  Case-based Learning in College Education
  August, 1997

- Ferris State University
  Creating your own Web Page
  April, 1997

- Midwestern University
  Downers Grove, Illinois
  Infusing Critical Thinking into College and University Instruction
  August 14 & 15, 1996

- Ferris State University
  Faculty Summer Institute: Developing the Learner Centered Classroom
  June, 1996

- American Institute of Architects National Convention
  Minneapolis, Minnesota
  May 1996

- University of Wisconsin
  Milwaukee, Wisconsin
  Innovative Environments for Dementia Care: Planning, Design & Evaluation
  October 27, 1994

- University of Michigan
  Ann Arbor, Michigan
  American Institute of Architects, Design Computing in the 90's and beyond
  October 1, 1994

- Grand Rapids Community College
  AutoCAD Advance Drafting Short Course Seminar
  March 1994

- SkillPath Seminars
  Troubleshooting & Maintenance of IBM PCs & Compatibles
  February 1994

- Team Building & Personal Profile Workshop
  Applied Technology Center
  January 1993

- Niacon '92
  World Exposition of Workplace Planning and Design
  June 1992

- Women's Professional Development Conference
  Ferris State University Lifelong Learning, Leadership 2000: Preparation for the Future
  May 1, 1992

- Construction Specification Institute Product Show
  Grand Rapids, Michigan
  April 1992

- CareerTrack Seminars
  High Impact Communication Skills
  February 4, 1992

- Ferris State University
  AutoCAD Short Course Seminar
  August 1991

- Women's Professional Development Conference
  Ferris State University Lifelong Learning
  New Images of Leadership & Progressive Teaching Techniques
  April 12, 1991

- Fred Stitt Architectural Technology & Education Seminar
  April 1991

- American Institute of Architects
  Performance of Roof Systems Seminar
  January 1991

- American Institute of Steel Construction, Inc.
  Allowable Stress Design Specification & Ninth Edition Steel Manual Seminar
  March 29, 1990

- Ferris State University
  AutoCAD Short Course Seminar
  March-April 1989
- Michigan Society of Architects Convention
  1989, 1992

COMMUNITY SERVICE

- FSU 2003 Summer Technology "Fun with Math" Camp
  Presenter
- Michigan Industrial and Technology Education State Design Competition
  Judge 1997, 1999
- Michigan High School Summer Institute for Arts and Sciences
  Architectural Tour Guide 1997
- Vocational Industrial Clubs of America, Michigan Design Competition
  Project Consultant 1997
- Lansing Community College Design Competition
  Judge 1995
- Girl Scouts/Grand Valley AIA Architecture Workshop
  Presenter, Facilitator 1992
- "Girls+Math+Science=Choices" Conference for Big Rapids middle school girls.
  Presenter 1991-1992
- Architectural Services for City of Coopersville, Coopersville, MI
  Design Consultant 1991
- Architectural Services for Mel Trotter Ministries, Grand Rapids, MI
  Design Consultant 1990
- Montcalm Intermediate School District's "Challenge for Success" Conference
  Presenter 1990
- Vocational Industrial Clubs of America, Michigan Design Competition
  Judge 1990-1994
- Rockford Senior High School Architectural Design Competition
  Judge 1987-1991
  Judge & Project Consultant 1988-1991

JOE M. SAMSON

7405 Arbol Drive NE; Rockford, Michigan 49341
Phone: 616.874.8070
Registered Architect: Ohio and Michigan
Certified Facility Manager-(by International Facilities Management Association)

(Note: Achievements since last Merit shown in italics.)

TEACHING EXPERIENCE:

FERRIS STATE UNIVERSITY
College of Technology; Architectural Technology and Facilities Management Department
Big Rapids, Michigan 49307

MERIT-(September '01)

ASSOCIATE PROFESSOR-(September '94-Present)
Continue to teach Architectural Technology and Facility Management courses. Responsible for Facility Management internship program. *Worked to develop PCAF for Ferris-Kendall baccalaureate and masters level professional architectural degree programs.* Work with faculty to update courses, make curriculum changes, etc. *Responsible for 3 of the 4 courses that will be offered in On-line FM Certificate Program.*

ASSISTANT PROFESSOR-Tenured '93 (September '88-September '94)
Teach in an Architectural Technology Associate Degree program which prepares students to work in the architectural field or go on to further studies. Courses taught include architectural graphics and presentation techniques, beginning computer graphics, working drawings in both first and second year courses, and contract documents and specifications. Also, teach facilities programming and facilities operations in a Baccalaureate Facilities Management Program.

COURSES TAUGHT:

ARCH 101 - Architectural Graphics (3 ch): *Taught every Fall Semester.*
Utilized the concepts of team projects and cooperative learning to master the basics of architectural drafting. Course revised Fall '01. (Previously 4 ch)
ARCH 102 - Working Drawings 1 (4 ch): *Taught every Winter Semester.*
Utilized the concepts of team projects and cooperative learning to design and develop a set of working drawings for a small building. Course revised to be CAD based Winter '02.
ARCH 109 - Computer Graphics in Architecture 1 (3 ch): *Taught some fall Semesters.*
Course revised Fall '01 to be more comprehensive and include 3D usage. (Previously 2 ch)
ARCH 241 – Design Fundamentals (3 ch): *Taught some Semesters.*
Developed series of lectures and hands on exercises designed to develop an appreciation and entry level competency in two dimensional and three dimensional design basics. Revised course with additional material. Fall '02. (Previously 2 ch)
ARCH 285 - House: An American Evolution (3 ch): *Taught most fall Semesters.*
Continue to teach this course which I developed. Revised for Winter '03. (Previously 2 ch)
FMAN 321 - Principles of Facility Management (3 ch): *Taught annually starting Winter '04.*
FMAN 321 - Principles of Facility Management (3 ch)WebCT version for Certificate Program: *Developed Fall '04. Offered Fall '05.*
FMAN 331 - Facility Programming and the Design Process (3 ch): Taught Winter Semester.
FMAN 331 - Facility Programming and the Design Process (3 ch) WebCT version for Certificate Program: *Developed Winter '05. Offered Winter '06.*
FMAN 393 – Internship in Facilities Management (3 ch): *Taught Summers starting '04.*
FMAN 451 - Building Diagnostics and Operations (3 ch): Taught Fall Semester.

RELATED WORK EXPERIENCE:

CLEVELAND METROPOLITAN GENERAL HOSPITAL
Department of Facilities Planning; 3395 Scranton Road, Cleveland, Ohio 44109

ARCHITECT-(April '88-July '88)
Served as liaison between hospital and consulting architects and designers. Developed conceptual design programs for implementation of hospital master plan.

A. A. LUKETIC ASSOCIATES, INC; ARCHITECTS-(1987-1988)
3385 Biltz Road, Kent, Ohio 44240
Subcontractor to firm specializing in residential and small commercial projects.

UNIVERSITY HOSPITALS OF CLEVELAND
Department of Planning and Construction; 2074 Abington Road, Cleveland, Ohio 44106

PROJECT COORDINATOR-(January '83-August '86)
Responsible for remodeling and new construction within the hospital, program development, content of working drawings and specifications, cost estimates for administration, competitive bidding, letting of contracts, scheduling and supervision of work, payment approval, and supervision of drafters.

DRAFTER-(June '81-January '83)
Responsible for the preparation of working drawings for construction projects within the hospital.

ROBERT L. HUNKER ASSOCIATES, INC.
Box 178, Peninsula, Ohio 44264

ARCHITECTURAL DESIGNER-(November '78-June '81)
Design and preparation of working drawings, specifications, bids, material and cost estimates for commercial and residential projects. Client contact, construction supervision, and work with survey crews to lay out allotments.

HWH ASSOCIATES, INC.
1150 West 3rd St., Cleveland, Ohio 44113

ARCHITECTURAL DRAFTER-(June '77-November '78)
Prepared architectural, structural, and mechanical working drawings for industrial projects. Prepared material estimates.

NORTHEAST OHIO AREAWIDE COORDINATING AGENCY
1501 Euclid Avenue, Cleveland, Ohio 44115

PLANNING INTERN-(Summer '76)
Developed computerized community participation correspondence system for federally funded 208 Wastewater Management Program.

CONSULTING:

ROGALKE ADDITION: *Lowell, MI (June-July '03)*

ALBER LAKE HOUSE RENOVATION: *Rockford, MI (August '01)*
Developed design concept drawings for renovation and addition to cottage.

SHANGRAW RESIDENCE: *Sparta, MI (June '01)*
Developed design and working drawings for residence.

ROBINHOOD AIRPORT EXPANSION: *Big Rapids, MI (May '01)*
Developed aerial perspective presentation drawing illustrating conceptual design proposed by airport user groups. Coordinated with Mike Lafferty.

MICHIGAN OCCUPATIONAL COMPETENCY ASSESSMENT CENTER; *Big Rapids, MI (May '01,May '99)*
Administered and graded performance portion of architectural drafting portion of test.

SHIAWASSEE COUNTY COMMUNITY MENTAL HEALTH CENTER; Owosso, MI ('98-'99)
Developed methodology to audit and develop preventive maintenance plans and budgets for the health center which consists of 4 leased spaces within the city of Owosso.

MECOSTA COUNTY GENERAL HOSPITAL; Big Rapids, MI ('97)
Long Term Site Development and Master Planning for hospital complex, along with preliminary budgeting and recommendations on atmosphere and visitor wayfinding.

OTTAWA INTERMEDIATE SCHOOL DISTRICT; Holland, MI ('97)
Space Planning for Grand Haven and Holland CBI (Community Based Instruction) facilities
OTTAWA INTERMEDIATE SCHOOL DISTRICT; Holland, MI ('97)
Master Planning for Educational Services Building.
HASHIMI RESIDENCE; Big Rapids, MI ('97)
Schematic Design, Design Development for new residence.
FRASER RESIDENCE ADDITION; Big Rapids, MI. ('97)
Schematic Design, Design Development for living area for physically disabled daughter.
BRASSEUR RESIDENCE; Hastings, MI. ('94-'95)
Schematic design, Design Development, Contract Documents for 8500 square foot home.
BEURKENS SUMMER HOME; Chippewa County, MI. (Summer '93)
Feasibility, Schematic Design.
PELLISIER RESIDENCE; Rockford, MI. (Spring '93)
Design drawings for renovation of laundry and storage area.
GORNEY RESIDENCE; Grand Rapids, MI. (Summer '92)
Design and schematic drawings for a contemporary residence.
MULLINS CABIN; Portage County, OH. (Summer '90)
Design and working drawings for a small rural cabin.
WVIZ-TV25; Cleveland, OH. ('85)
Design and schematic drawings for addition and renovation to office area and transmission areas.
CHURCH OF THE BLESSED HOPE; Chesterland, OH. ('84)
Design and working drawings for addition to church.
Several other private residences in the northeast Ohio area.

BOOK REVIEWS:
WEST PUBLISHING CO.
454 Central Avenue, Highland Park, IL 60035
Architectural Drafting Fundamentals; Mark Schwendau.
-Overall evaluation of proposal for text. (July '93)
Construction Materials; William P. Spence.
-Reviewed entire draft. (February '93)
AEC Drafting Fundamentals; Jules Chiavaroli.
-Reviewed final draft. (July '94)
-Reviewed revised draft of Chapters 13-16. (October '93)
-Reviewed revised draft of Chapters 8-12. (August '93)
-Reviewed revised draft of Chapters 1-7. (July '93)
-Reviewed entire draft. (December '92)
-Reviewed revised draft of Chapters 1-9. (April '92)
-Reviewed original draft of Chapters 1-9. (April '91)

ACADEMIC BACKGROUND:
KENT STATE UNIVERSITY
Kent, Ohio 44242
- **MASTER OF ARCHITECTURE**-3.67 GPA (Spring '88)

Thesis Title: "Post-Occupancy Evaluation as a Function of the Design-Construction Process: A Study of Office Spaces as Perceived by the Designer, Client, and User."
- **TEACHING ASSISTANT**-(Fall '86-Spring '87)
- **BACHELOR OF ARCHITECTURE**-3.18 GPA (Spring '77)

Tau Sigma Delta Honorary
- **GRADUATE SCHOOL OF BUSINESS**-(Spring '81-Spring '85)

24 Graduate hours completed

CONTINUING EDUCATION:

- ***LEED Training.*** *Ferris State University. (8 hours, 14 April, 2005)*
- ***Sketching Workshop with Paul Laseau.*** *Ferris State University. (1 April, 2005, 8 hours)*
- ***Diversity Education Session.*** *Ferris State University. (25 March, 2005, 1 hour)*
- ***The Intentional Campus: Everyday Opportunities to Enrich Students' Experience by Improving the Physical Environment of a Campus.*** *Society for College and University Planning. Web Presentation at Physical Plant, Ferris State University. (1.5 hours, 17 February, 2005)*
- ***Spring Learning Institute: Communication: Changing Patterns in a Changing World.*** *Ferris State University, Big Rapids, MI. (Half day, 2 April '04)*
- ***REVIT Fundamentals.*** *Autodesk Training Center, Grand Rapids, MI. (3 days, 30 May – 2 June, '03)*
- **ADA Seminar and Mock Mediation Program.** Sponsored by Grand Valley AIA at Aquinas College. Grand Rapids, MI (One Day, May 18, '00)
- **AutoCAD 2000 Update.** Sponsored by Autodesk Training Center at Grand Rapids Community College. Grand Rapids, MI (Two Days, May 8-9, '00)
- **Diversity in Higher Education.** Sandra Strothers. Sponsored by FSU. (One Hour, April '00)
- **Sexual Harassment Session.** Sponsored by FSU. (One Hour, Fall '99)
- **Waste Reduction and Energy Efficiency Workshop.** Sponsored by the Michigan Department of Environmental Quality. Livonia, MI (One Day, 10 November '99)
- **Handling Asbestos: Your Rights and Responsibilities Workshop.** Sponsored by the Michigan Department of Environmental Quality. Grand Rapids, MI (Half Day, 26 March '98)
- **"Archibus Training the Trainers Seminar"**, Presented by Archibus in Boston, MA. Part of grant obtained by Mel Kantor, seeded by initiatives identified at "Faculty Summer Institute". (Three Days, June '97)
- **"FM-Systems Seminar"**, Presented by Mike Schley of FM-Systems, a seminar on computer based Facility Planning and Management. Sponsored by Joe Samson and Vicky Hardy with funds from the "Faculty Summer Institute". (One Day, April '97)
- **"Environmentally Conscious Interior Design"**, Presented by Denise Guerin, PhD of the University of Minnesota at Eastern Michigan University, Ypsilanti, MI. (One Day, 7 March '97)
- **"Faculty Summer Institute"**, Presented by the Center for Teaching, Learning, and Faculty Development at Ferris State University. (June '96)
- **"Facility Executive Perspectives on Workplace for the Next Millenium"**, Presented in Chicago, IL by the International Society of Facility Executives (MIT), 336 Main Street, Cambridge, MA 02142-1014. (One Day, June '96)
- **"Focus on Facilities"**, Seminar sponsored by Northern Illinois IFMA Chapter, Chicago, IL. (One Day, October '94)
- **"AutoCAD Advanced Drafting"**, Grand Rapids Community College Autodesk Training Center. (One Day, March '94)
- **"A Better Environment-By Design"**, A seminar on environmentally sensitive design and construction. Sponsored by Michigan Construction Users Council. Lansing, MI. (One Day, December '93)
- **"Creating Learning Organizations: Growth Through Quality:**, PBS produced conference featuring Drs. Deming and Senge. Teleconference at FSU. (February '93)
- **"FSU Technology/Business Faculty Seminar"**. Sponsored by FSU. (October '92)
- **"Construction Department AutoCAD Seminar"**. Sponsored by FSU Construction Department. (Summer '91)
- **"Facilities Strategic Planning Seminar"**. Sponsored by International Facilities Management Association. Chicago, IL. (July '90)
- **"Gerholtz Institute AutoCAD Seminar"**. FSU. (Fall '89)
- **"The Life Safety Code Seminar"**. Sponsored by the National Fire Protection Agency. Albany, NY.

(Spring '86)

CONFERENCES AND CONVENTIONS ATTENDED:

- ***World Workplace:*** *Annual conference and convention for the International Facility Management Association. Toronto, Ontario (6-9 October '02)*
- ***TFM Show at Construct America. (Facilities Management).*** *Chicago, IL. (3 days, 21-23 April '04)*
- **World Workplace;** Annual conference and convention for the International Facility Management Association. Chicago, IL (18-20 October '98)
- **A/E/C Systems '98;** Seminar of computer and software systems for architects, engineers, and contractors. Chicago, IL (One day, June '98)
- **World Workplace:** Seminar of computer and software systems for architects, engineers, and contractors. Baltimore, MD (One day, October '94)
- **Facilities Management Educators' Council.** Conferences. Lansing, MI (September '91), Grand Rapids, MI (September '92), Buffalo, NY (September '93), Lansing, MI (May '94), Chicago, IL (October'98)
- **IFMA Student Conference**; Lansing, MI (September '91), Grand Rapids, MI (September '92), Lansing, MI ('94)
- **NEOCON**; Chicago, IL. (June '90, '91, '92)

SERVICE AND COMMITTEE MEMBERSHIPS:

Program:

- *Developed, administered, and analyzed employer, student, and alumni data for Facility Management Program Review. (Winter 2005)*
- *Developed and maintain FM Alumni Distribution List for FM Job Opportunities. (Fall 2003-Present)*
- *Reviewed statistics on high schools with most potential for student interest in program and coordinated faculty-high school visits. (Winter '03-present)*
- *Member BS and M Arch Curriculum Development Committee. (Winter '03-Present-on hold)*
- *Organized first, and second, and third "Architectural Graphics and Design Seminar" for high school drafting instructors with presentations by FSU Architectural Technology faculty. (October '00, '95, '94) 2000 seminar was in cooperation with AT/FM and TDTD faculty for high school drafting instructors.*
- *Participated in "Autumn Adventure".* (October '93, *'94, '95, '98, '00, '01*)
- *Architectural Technology and Facilities Management Library Liaison. ('89-'00)*
- *Member lab maintenance committee. (Fall '92-Present)*
- *Faculty Advisor International Facilities Management Association, FSU Student Chapter. ('90-Present)*
- *Developed exit interview for graduating AT and FM students. Compiled results and prepared annual reports. (Spring '92-Present)*
- *Developed standards for Facilities Mgmt. transfer students with input of AT/FM faculty. ('94-Present)*
- Worked on program review content for AT and FM programs. (1999)
- Worked with architectural technology faculty to develop proposal for baccalaureate degree in architectural technology. Developed and proposed to faculty concept of tracks for the degree. (not accepted) Developed survey for professionals regarding their need for graduates of proposed program. (this proposal has not moved outside the program)
- Developed proposal for Minor Degrees in Facilities Planning Management and Facilities Operations Management with Vicky Hardy. (Approved Spring '96)
- Adapted FMAN 331 and FMAN 451 to distance learning methods and taught both courses via distance learning. ('96)
- Prepared program display for Construction Specification Institute Convention. ('96)

- Record, prepare, and distribute minutes of AT/FM program meetings. (Fall '91-Spring '94)
- Member course scheduling committee. (Fall '92-Spring '94)
- Participated in Homecoming Chili Cookoff (Fall '97)
- Organized field trip for students to Cleveland, Ohio. (April '93)
- Faculty Co-advisor American Institute of Architectural Students. ('89-'90)
- AIAS student field trip to Columbus, IN. (April '91)
- Organized departmental display for Michigan Society of Architects Convention. (Fall '88-'89)
- Organized student/program advisory board interaction sessions for '89 advisory board meeting.

Department:
- *Chair of Tenure Committee for Mike Feutz. ('01-'02)*
- *Member of Tenure Committee for Mary (Bockstahler) Brayton. ('96-'01)*
- Mentor and Chair of Tenure Committee for Victoria Hardy. ('94-'99)
- Member Search Committee for Construction Department Head. (April-May '91)
- Mentor to Dave Batie. ('90-'91)
- Member of committee to write proposal for a "Summer Institute" program at FSU. (Fall '90)

College:
- *Member COT Promotion Committee. (Fall '03 – Winter '05)*
- *Member COT Faculty Research Grant Committee (Fall '02-Present)*
- *Worked at COT Student Picnic ('96, '97, '00, '01, '02)*
- Member College of Technology Promotion Committee (Fall '97-Spring '00)
- Chair of College of Technology Promotion Committee ('98-'99 Academic Year)
- Represented Construction Department in writing of program goals for State Grant Request for proposed Technology Building Addition. (October '94)
- Worked with College of Technology to develop Alumni Survey. ('90)

University:
- *Member Physical Teaching Spaces Renovation Committee. (Winter 2005-Present)*
- *Member Physical Teaching Spaces Task Force. (Fall 2004)*
- *Member Social Awareness Sub-Committee of the General Education Outcomes Assessment Committee. ('01-Present)*
- *Coordinated Distribution of Social Awareness Exit Interviews for College of Technology. (April '02, '03)*
- Member of Student Fees Committee. ('97-'99)
- Member of University Recreation Advisory Committee. (March '93-March'94)
- Member Campus Facilities Master Planning Committee. ('90-'93)
- Member International Education Committee. ('90-'91)
- Member FSU Academic and Administrative Computer Activities Steering Committee. ('89-'90)

Community:
- *4 Gallon Donor – Michigan Community Blood Centers. (August '04)*
- *Volunteer Instructor/Coach Griffins Youth Foundation. Grand Rapids, MI. ('02)*
- *Volunteer to implement wildflower garden at St. Patrick's School in Parnell, MI. Part of National Wildlife Foundation Grant. (May '01)*
- *Volunteer Casey's Kitchen. Restaurant in Grand Rapids that serves free breakfasts to needy in restaurant atmosphere. (August '00)*
- Volunteer Landscaping Coordinator for Project One (similar to Habitat) Davis Street house in Grand Rapids. (May '99).
- Carpentry volunteer for Project One Davis Street house in Grand Rapids. (Fall '98)
- Michigan Association of Vocational Industrial Clubs of America; Developed design and drafting project for state architectural competition. (April '97)(April '98)(April '99)
- Grand Rapids Home Builders Association. Judge for Awards of Excellence. (June '91, '92, '93, '94,

'95, '96, '97)
- Olde Millpond Condominium, Building and Grounds Committee. Chair (April '94-July '95) Member (October '92-July '95)
    - instrumental in negotiating maintenance contracts.
    - independently developed computerized spread sheet to schedule and budget long term maintenance. (Summer '93)
- Olde Millpond Condominiums, Board of Directors. Member (April '94-July '95) Associate Member (May '92-April '94)
- Monday Night Technology at FSU. (January '95)
    - helped 7th and 8th graders attending a seminar developed by Bruce Dilg.

- Building review and schematic design for Downtown Development Authority; City of Coopersville. Joint project with Mel Kantor and Diane Nagelkirk. (September '92-August '93)
    - Schematic design for new city signage. (Summer '93)
    - Schematic design for apartments over Annabelle's Dress Shop. (Summer '93)
    - Schematic design for renovation to facade of Safeway Lumber. (Summer '93)
- Rockford City Schools; Judge for Architectural Drafting Competition. (April '91, April '92)
- Michigan Association of Vocational Industrial Clubs of America; Judge for state architectural competition. (May '89, May '92)

PROFESSIONAL ACTIVITIES AND AFFILIATIONS:
- ***Architectural Licenses current in Michigan and Ohio.***
- ***Renewed Certified Facility Manager Designation, IFMA, '00, '03.***
- ***Member,*** *International Facilities Management Association. ('89-Present)*
- **Certified Facility Manager, IFMA,** earned designation 1997.
- **Member,** Facilities Management Educators' Council. ('91-'99)
- **Secretary-Treasurer,** Facilities Management Educators' Council. ('94-'96)
- **Member,** Architects/Designers/Planners for Social Responsibility. ('89-'95)
- **Member,** City of Kent, Ohio; Board of Zoning Appeals. (August '86-August'88)

TEACHING METHODOLOGY AND RELATED:
- ***Developed revisions to Facility Management Curriculum with Diane Nagelkirk.*** *(Winter 2005)*
- ***Adapted FMAN 321-Principles of Facility Management for On-Line Delivery.*** *(Fall 2004)*
- ***Adapted FMAN 331-Facility Programming and the Design Process for On-Line Delivery.*** *(Winter 2005)*
- ***Responsible for Facility Management Internship Program (FMAN393).*** *(Summer 2004-Present)*
- ***Prepared as Member of BS and M Arch Curriculum Development Committee.***
    - ***Summer contract with Diane Nagelkirk to continue work on above.*** *(Summer '03)*
        - ***Prepared PCAF.***
        - ***Compiled survey information.***
        - ***Researched and developed draft curriculum consistent with NAAB matrix.***
        - ***Researched and developed budget and staffing requirements for draft curriculum.***
    - ***Mission and Vision Statements.*** *(Winter '03)*
    - ***Survey of Employer Demand.*** *(Winter '03)*
    - ***Survey of Student Demand.*** *(Winter '03)*
- ***Prepared Study of Impact of High School Teacher's Architectural Technology/CAD Seminar and Recruitment of Students.*** *(September '02)*
- ***Prepared Study of MI High Schools to Target for 2003 Recruitment.*** *(September '02)*
- ***AT Curriculum Revisions:*** *Implemented first year changes in curriculum revisions. These revisions are intended to bring more use of the computer and CAD into the classroom and to involve the students in comprehensive, team based study. (Implemented Fall '01, Winter '02)*
- ***Worked with faculty to revise courses for AT curriculum revision:*** *(Fall '01-Winter '03)*
    - *Revised ARCH 241, Design Fundamental. Increased course from 2 to 3 credit hours.*

Developed new Power Points and new projects that utilize models to explore concepts.

- *Revised ARCH 285, House: An American Evolution. Increased course from 2 to 3 credit hours.*
- *Revised ARCH 102, Working Drawings 1 with Diane Nagelkirk and Mary Brayton. Converted course to CAD base.*
- *Revised ARCH 101, Architectural Graphics with Diane Nagelkirk and Mary Brayton. Reduced from 8 to 6 contact hours and restructured course to prepare students to use hand drafting as a tool to aid in planning and organizing CAD work.*
- *Revised ARCH 109, Computer Graphics for Architecture with Diane Nagelkirk. Increased course from 4 to 6 contact hours and added content from former ARCH 209. Restructured course as well.*

- ***Prepared Draft Proposal for Revisions to Architectural Technology Associate Degree.*** *(March '00)*
- **FM-Campus Location:** Participated with Vicky Hardy and Mel Kantor in developing a survey of potential FM students to determine the best campus for the program; Big Rapids or Grand Rapids.
- **FM Curriculum Revisions:** Organized FM curriculum revision process with Vicky Hardy and Mel Kantor. Approved 1998.
- **Prepared Survey of Architects and Contractors Regarding Employment Potential for BS in Architectural Technology.** (Summer '98)
- **Preliminary Study of Potential Programs for Articulation into Proposed BS in Architectural Technology.** (February '98)
- **Prepared Survey of Alumni and Current Students Regarding Interest in Proposed BS in Architectural Technology.** (Winter '96)
- **FM Minor Degree Option:** Developed Minor Degree option for Facilities Management Program. Approved 1996.
- **Distance Learning:** Adapted FMAN 331 and FMAN 451 to distance learning methods and taught both courses via distance learning.
- **Architectural Technology Baccalaureate Development:** Worked with architectural technology faculty to develop proposal for baccalaureate degree in architectural technology. Developed and proposed to faculty concept of tracks for the degree. Developed survey for professionals regarding their need for graduates of proposed program. (this proposal has not moved outside the program)

PUBLICATIONS AND PRESENTATIONS:

Guest Speaker, "SOCY 344: World Urban Sociology; *for Tony Baker; FSU, Winter '05.*

"Forces That Shape Vernacular Architecture: The Wooden Churches of Slovakia", *tentatively scheduled for publication in Insider.*

Guest Speaker, ARCH 112: Structural Materials; *for Bruce Dilg, FSU, Fall '04.*

"Longevity in Wood Construction", Michigan Design Educators Conference, *FSU, Fall '04.*

"Impressions of Slovakia – 9 Years Later", *Slovakia, Summer 2004.*

"Keeping Warm in Orava and the Slovak Carpathians", *Slovakia, Summer 2004.*

A Visit to the Folk Jewels of Slovakia", *Slovakia, Summer 2004.*

Guest Speaker, "SOCY 344: World Urban Sociology; *for Tony Baker; FSU, Winter '04.*

"World Workplace '02 Session Moderator"; *Provided introduction as well as facilitated educational sessions at the convention. "Achieving Effective Office Acoustics" by Klaus and Niklas Moeller, Moeller Associates Ltd., Oakville, Ontario; "Green Building Design" by Eric Truelove, PE, Matthew Tendler AIA, and Patrick Kressin, Midwest Sustainable Collaborative, Milwaukee, WI; "Going Green: What Does It Mean? An FM Guide to Sustainability" by Judy Munro CFM, Tri-Metropolitan Regional Transit District, Portland, OR; Toronto, Ontario. (October '02)*

"Slovak Folk Architecture", *Article published in Slovakia a quarterly publication of the Slovak Folk Heritage Society. (Summer 2002)*

"Folk Architecture of Slovakia", *Presented at the "Slovak Fest", Lakeland Community College, Cleveland, OH. (November 10-11, 2001)*

"Architectural and Mechanical CAD Drafting, Design, and Modeling Seminar", Developed and

coordinated session with cooperation of Architectural Technology/Facilities Management and Technical Drafting/Tool Design Departments; presented with Diane Nagelkirk and Mary Brayton for "CAD Basics II", FSU, Big Rapids, MI. (October 2000)

Guest Speaker, "CISM 610: Database Management and Administration; for Rose Ann Swartz; FSU, Summer '99, Fall '99, and Winter '00.

"World Workplace '98 Session Moderator"; Provided introduction as well as facilitated educational sessions at the convention. "Computer Maintenance Management System Implementation" by Kalman Feinberg, Facilities Management Engineering Inc., Teaneck, NJ and "Managing the Moves/Adds/Change Process" by Sonya Toblada, Facility Resources Inc., Atlanta, GA; Chicago, IL. (October '98)

"CAD Basics II", Presented with Diane Nagelkirk at "Architectural Graphics Design Seminar"; FSU, Big Rapids, MI. (April '97)

"Architectural Graphics Design Seminar", Developed and coordinated session; FSU, Big Rapids, MI (October '95)

"How Would an Architect Do That?"; Presented with Diane Nagelkirk and Dave Tulos at "Architectural Graphics Design Seminar"; FSU, Big Rapids, MI. (October '94)

"Drafting Techniques for Communicating Architectural and Building Technology Concepts"; Presented with Diane Nagelkirk at "Back to the Future II"; FSU, Big Rapids, MI. (March '93)

"Post-Occupancy Evaluation of Buildings and Its Impact on Users"; Presented at Environment-Behavior Applications in the Design Field; Kent State University; Kent, OH. (November '91).

"Architecture of the '90s: A Vision of an Environmentally & Socially Responsible Built Environment"; Presented with Diane Nagelkirk at ATEA Workshop sponsored by FSU, Big Rapids, MI. (November '90)

"Conflicting Environmental Priorities of Designers, Clients, and Users of Office Spaces: A Survey of Eight Office Settings"; Design Methods and Theories, Vol. 22, No. 3, '88, page 878.

"Post-Occupancy Evaluation of Environmental Systems in Commercial and Institutional Office Buildings"; Co-author with Jack Alan Kremers, Prof. of Architecture, Kent State University; Presented at the Energy Conference sponsored by the Tennessee Valley Authority; Chattanooga, TN. (May '88)

RESEARCH:

- ***Sabbatical to Study Vernacular Wooden Church Structures in Northeastern Slovakia.*** *(Fall '03)*

GRANTS:

- ***Recipient of Team College of Technology Faculty Development Grant-Submitted by Mary Brayton.*** *Used to fund sketching seminar for Architectural Technology Faculty. (April '05)*
- ***Recipient of Team College of Technology Faculty Development Grant-Submitted by Gary Gerber.*** *Used to fund LEED seminar for Architectural Technology Faculty. (April '05)*
- ***Recipient Timme Grants.*** *Used to fund Fall '03 Sabbatical. Used to fund Fall '02 trip to Toronto, Ontario for World Workplace.*
- ***Recipient of Academic Senate Faculty Development Grant.*** *Used to fund Fall '03 Sabbatical.*
- ***Recipient of Individual College of Technology Faculty Research Grant.*** *Used to fund Fall '03 Sabbatical.*
- ***Recipient of Team College of Technology Faculty Development Grant-Submitted by Gary Gerber.*** *Used to fund REVIT seminar for Architectural Technology Faculty. (July '03)*