Printing and Digital Graphic Imaging; Printing Management

Progress Report 1999-2000

Section 1 of 1

- Printing

1999-00 -

Printing and Digital Graphic Imaging

and the

Printing Management Programs

PROGRESS REPORT

prepared for the

Academic Program Review Council

September 20, 1999

Submitted by:

Patrick Klarecki

TABLE OF CONTENTS

INTRODUCTION
THE DEVELOPMENT OF AN EQUIPMENT ENHANCEMENT PROGRAM
STUDENT RECRUITMENT EFFORTS
SUMMARY4
APPENDIX A - Graphic Arts FY 2000 UAP
APPENDIX B - FY 2000 Unit Action Plan Responses
APPENDIX C – High School Tour Day Invitation
APPENDIX D – Example of Data Base Alumni Letters
APPENDIX E – Careers in Print Brochure

INTRODUCTION

The following progress report of the Printing and Digital Graphic Imaging, (formerly Printing Technology) and the Printing Management programs is submitted to fulfill the request of the Academic Program Review Committee. As requested, this report covers the progress made in two areas; first the development of an equipment enhancement program, and second, student recruitment efforts to fill latent capacity of the program.

It is with great pleasure that I report to the review committee that progress has been made in both areas. We have seen success with our recruiting efforts and we have been able to add significant equipment to our lab facilities.

THE DEVELOPMENT OF AN EQUIPMENT ENHANCEMENT PROGRAM

Since the Academic Program Review done by our program in 1996-97, several pieces of equipment have been added to our laboratory. These pieces of technology total in value to nearly \$675,000. Ferris State University provided \$142,000 in UAP funding to replace our computer lab and improve the infrastructure. The remainder of the \$675,000 was received as donations from our industry and its suppliers.

Color copier/output device Chief 17 press Stahl folder Silicon Graphic Color Editing system SHOTS printing press simulator Xitron RIP RAMpage RIP Imation Rainbow Digital Proofing system Hagen Shopfloor Management system Parsec Estimating system X-Scan densitimeter Presto saddle binder Film processor Plate processor Large format plotter Plate exposure frame 22 G-3 Macintosh computers G-3 Macintosh file server Infrastructure upgrade to fiber & 100/T	Donation Donation Donation Donation Donation Donation Donation Donation Donation Donation Donation Donation Donation Donation Donation Donation Purchased Purchased	Xerox Grandville Printing Dekker Book Binding North American Color Printing Industries of MI Xitron RAMpage Foremost Graphics Hagen Systems Inc Parsec X-Rite Corp Muller Martini Corp Fuji USA Fuji USA Fuji USA Xitron Grandville Printing UAP funding UAP funding UAP funding
All applicable software for PTEC	Purchased	UAP funding

While we have worked hard to develop industry support for our program and by appearance we have been successful, this represents only a small portion of what is needed. Our program is equipment technology intensive and that technological equipment is not cheap.

We have proposed throughout the UAP process each year for the last two years an "Instructional Lab Continuous Improvement Plan". In that plan, we have asked for continuous funding at a minimum of \$50,000 each year. (See appendix A) Each year the V.P and President have responded to this UAP with a HOLD status. (See appendix B) Our FY 2001 proposed UAP #1 and FY 2000 UAP #4 addresses the need to add printing presses to our program. We currently have a lab with two pieces of equipment and have to teach 15 students at a time. This laboratory is not safe nor does it yield a quality experience for our students.

Since the original APR report, we have completely lost Perkins Vocational Education funding. Historically we received about \$25,000 each year until FY 1998. Since FY 1998 we have received nothing in Perkins money. For FY 2000 we were told we were a "Priority 1" program but still received no funding.

Our strategy has been and will continue to be to work with our industry and its suppliers to get what we need donated. We will also continue to work through the system of writing for grants and UAPs to get financial support for those items we cannot get donated.

STUDENT RECRUITMENT EFFORTS TO FILL LATENT CAPACITY OF THE PROGRAMS

Prior to the review process of 1996-97 the Graphic Arts family of programs have been experiencing a decline in enrollment. This decline was attributed to several factors that were examined in detail throughout the original APR report. To summarize the APR report, enrollment had declined mainly because of neglect. No recruiting initiatives, no curriculum revisions, no new equipment had been added and virtually no attention had been given to grow the program.

As a result of fiscal restructuring, our faculty was reduced by three full time faculty. This reduction resulted in a reduction of the capacity of students allowed into our program. The capacity reduction took place in the 1994-95 school year.

2

COL	LEGE
-----	------

1994/95 1995/96 1996/97 1997/98 1998/99

TECHNOLOGY

DESIGN, MFG & GRAPHIC ARTS*					
Manufacturing Engineering Tech	0	0	51	41	43
Manufacturing Tooling Tech	0	0	62	68	58
Mechanical Engineering Tech	0	0	51	45	46
Plastics Engineering Technology	0	0	88	75	58
Plastics Technology	0	0	116	132	141
Pre-Mechanical Engineering	0	0	10	6	7
Pre-Manufacturing Engineer Tech	0	0	1	2	3
Pre-Manufacturing Tooling Tech	0	0	4	1	1
Pre-Plastics Engineering	0	0	26	16	9
Pre-Plastics Technology Tech	0	0	34	13	17
Pre-Printing Management	0	0	0	0	0
Pre-Printing Technology	0	0	0	0	0
Pre-Product Design Engineering	0	0	2	3	6
Pre-Technical Draft /Tool Design	0	0	4	2	5
Pre-Welding Tech	0	0	2	0	2
Printing Management	0	0	34	34	33
Printing Technology	0	0	84	61	82
Product Design Engineering	0	0	47	52	49
Quality Technology	0	0	0	0	0
Rubber Technology	0	0	0	0	13
Technical Drafting & Tool Design	0	0	67	71	69
Technical Illustration	0	0	2	0	0
Welding Technology	0	0	58	43	53
Welding Technology Cert.	0	0	0	0	1
Welding Engineering Technology	0	0	43	43	46
Total	0	0	786	708	742
OFF-CAMPUS					
Manufacturing Engineering Tech	0	0	69	62	60
Manufacturing Technology	Ō	Ō	0	0	0
Plastic Engineering Technology	0	Ō	4	3	4
Product Design Engineering Tech	Ō	Ō	40	31	26
Quality Engineering Technology	Ō	Ō	8	7	13
Quality Technology Cert.	Ō	Ō	5	2	1
Off-Campus Total	0	0	126	105	104
DEPARTMENT TOTAL	0	0	912	813	846

Listed below are the enrollment numbers starting with fall of 1992

<u>1992-93</u> Printing Technology Printing Management	124 36	Total 160	Capacity 160 60
<u>1993-94</u> Printing Technology Printing Management	103 42	Total 145	160 60
<u>1994-95</u> Printing Technology Printing Management	102 49	Total 151	125 40
<u>1995-96</u> Printing Technology Printing Management	85 46	Total 131	125 40
<u>1996-97</u> Printing Technology Printing Management	84 34	Total 118	125 40
<u>1997 - 98</u> Printing Technology Printing Management	61 34	Total 95	125 40
<u>1998-99</u> Printing Technology Printing Management	82 33	Total 115	125 40
<u>1999-00</u> Printing Technology Printing Management	85 38	Total 123	125 40

We are proud of the turn around in the trend concerning enrollment growth but realize that we have a long road ahead to go. Listed below are the various initiatives that we have used to recruit students so far.

- The program coordinator and some faculty visit as many as fifty high school printing classes each year to discuss continuing education at Ferris State University with students.
- The Printing program student association sponsors each year a high school tour day where an average of 250 students come on busses to visit our campus and laboratory. (Appendix C)

- We have an alumni database that we use to match alumni with prospective and admitted students to help incoming students feel more comfortable in their decision to attend Ferris State University. (Appendix D)
- All of our faculty are responsible for a portion of the alphabet. Each of their prospective and admitted students are contacted by both letter and phone to offer assistance.
- We sought and received a grant from the Printing Industries of Michigan to print and distribute 700,000 brochures showing career opportunities in printing to every high school student in Michigan. (Appendix E)
- We sought and received a grant from the Graphic Arts Education and Research Foundation to host a conference for guidance counselors teaching them about career opportunities in printing. All the expenses of the counselors were paid for them to stay in Grand Rapids for two days and to spend one day on our campus learning about careers in printing.
- We have enlisted the assistance of the Programmatic Marketing committee.
- We have worked with Lana Ford to build articulation agreements with several community colleges and high schools. Over 25 agreements already exist.
- We "cleaned up" our associate degree curriculum. This not only enhanced our program by adding new and challenging courses, but made the articulation process easier.
- We have proposed a new bachelor degree track that feeds from our existing associate degree in "New Media Printing and Publishing Services". This degree will allow for 20 new seats.
- We plan on "cleaning up" the bachelors degree in Printing Management during the 2000–2001 school year.
- We are seeking accreditation from the Graphic Arts Technical Foundation.
 Currently there is no accrediting agency for printing programs. The GATF has initiated an accreditation program and Ferris State University will be the first University accredited in the United States.
- Our entire faculty group spent six Friday afternoons with the Center for Teaching and Learning working on our teaching delivery techniques.

SUMMARY

The faculty, staff and students, our alumni, advisory board, the printing industry and its suppliers all believe the Printing and Digital Graphic Imaging, Printing Management, and New Media Printing and Publishing Services programs are all valuable assets to the College of Technology and Ferris State University. All of the above named parties have made significant contributions and commitments to enhance the programs we offer. It is becoming the feeling of some of our supporters that Ferris State University does not do enough to support our programs. The Graphic Arts programs need support from the institution in these areas:

- Continued support in the area of marketing and recruiting for our program. No one on our campus will recruit as passionately the quality students that we need to keep our program alive as our own faculty. We must continue to fund and support the time that is spent in this area.
- There must be a visible allotment of funding to continually replace technological equipment in our laboratories. Our industrial employers have indicated at advisory board meetings that the current useful life span of some technology is 18 months. Ferris State University has not planned or has not made any commitment to a plan to continually replace equipment. It is a hit or miss on one time funding initiatives that replace equipment.
- We must be able to match industrial donations. It becomes much more attractive to prospective donors if we have funding to cover moving and installation expenses. In some cases we are offered equipment at tremendously reduced prices but still do not have the resources to accept the offers.
- Our faculty need to be continually trained in the latest techniques and on the newest technology. We need to have resources available for faculty development.

It is the hope of the Graphic Arts that through the Academic Program Review process, some of these very essential needs can and will be addressed.

Graphic Arts

GOAL 1.

Increase instructional productivity; reduce maintenance costs, bring laboratory facilities to a level that our recruited students and graduate employers have come to expect from Ferris State University.

MAJOR ACTIVITIES AND PROCESSES

- Close one computer lab of 15 out-of-date computers (they will not run current software)
- Upgrade our second computer lab (currently has eight current computers, three outof-date machines) to have 21 state-of-the-art computers and output devices. Net effect—add 13 computers, 4 scanners, and 1 imagesetter.

EXPECTED OUTCOMES

- Lab capacity can be raised from 10 to 20 students, virtually a 100% improvement in productivity for 6 of our 12 lab courses.
- Labor hours required to maintain computers will be reduced due to having a lessor number of computers and newer technology.
- Over 100 students have exposure to required use of the computers 240 hours each semester.
- Recruiting efforts will remain positive as our laboratory will be equal to and better than those found in high schools.
- Graduate placement will remain 100% as employers realize our graduates are proficient with current technology.
- Reduced software costs due to less licensing requirements.
- Support the needs of our proposed New Media Printing and Publishing bachelor's degree.

INDICATORS/SOURCES

- University productivity report
- Computer support services records
- Placement office graduate survey
- Industry Advisory Board meeting

REPORTING PROCESS

• Dean

RESOURCE REQUIREMENTS

- 13 Macintosh G3 300 MHz computers with 21" monitors and software @\$6,200 each--\$80,600
- 4 Lino-Hell Saphire II scanners @\$3,500--\$14,000
- Lino-Hell Hercules-basic imagesetter with RIP \$100,000
- Digital color proofing system \$20,000
- Color image projection system \$8,000

GOAL 2.

Continue our proven methods of student recruitment for the purposes of making the quality of our programs and university more visible and to increase enrollment of quality students in Printing and Digital Graphic Imaging Technology, Printing Management, and our new proposed Bachelor's degree in New Media Printing and Publishing Technology.

MAJOR ACTIVITIES AND PROCESSES

- Graphic Arts program faculty will visit no less than 50 printing and non-printing high schools and community college programs in Indiana, Ohio, Illinois, and Michigan
- Continue to maintain and utilize our database of alumni, high school printing teachers, industry professionals and prospective students to administrator direct mail and phone calls.
- Initiate a competitive scholarship for freshman students
- Gain national accreditation from Graphic Arts Technical Foundation

EXPECTED OUTCOMES

• Enrollment of quality students will increase at a rate comparable to 1998's 80% increase in freshman and transfer students enrolled.

INDICATORS/SOURCES

• Enrollment data

REPORTING PROCESS

• Les Dean de la companya de la company

RESOURCE REQUIREMENTS

- Based on historical data collected from FY '97 and '98 approximately \$5,000 is needed in the supply and expense budget for travel. The average travel cost for each visit is about \$100
- Initiate two (2) \$500 competitive scholarships--\$1,000 from Academic Affairs
- \$2,000 for fees associated with national accreditation

Graphic Arts

GOAL 3.

Start our new "New Media Printing and Publishing Technology" Bachelor's degree with the quality and intensity our industry and students have come to expect from Graphic Arts programs at Ferris.

MAJOR ACTIVITIES AND PROCESSES

- Provide professional development for faculty who have developed new courses in New Media Technology
- Upgrade existing software
- Equipment budget-digital camera, digital press, etc.

EXPECTED OUTCOMES

• Faculty will be knowledgeable enough to teach their courses at a quality level

INDICATORS/SOURCES

Post graduate surveys

REPORTING PROCESS

• Dean

RESOURCE REQUIREMENTS

- Four faculty are currently developing new courses outside their current base of knowledge. Each faculty should register for private training seminars (average week tuition \$2,500), travel (on average, airfare, meals, lodging--\$1500), total per person \$4,000 or \$16,000 total
- On-going professional development money should be made available for a few years to bring the faculty up to speed with these new courses.

Graphic Arts

GOAL 4.

Reaffirm the commitment we have made to our students, and employers of our graduates, of the quality, safety and technology in the areas of heavy manufacturing for the printing process.

MAJOR ACTIVITIES AND PROCESSES

- We currently have two safe printing presses for use in our beginning labs of 15 students. Additional equipment will be needed.
- Continued work on building new and strengthening current partnership with industry equipment manufacturers will be a priority.
- Emphasis will be placed on consignment agreements
- The university must be willing to participate in some type of matching fund or installation cost program.

EXPECTED OUTCOMES

- At least one new press to be added by the end of FY 2000
- A reduction of having seven students on one machine to five per machine will improve safety.
- Current technology will be added improving quality of instruction
- Graduate placement will remain high
- Student enrollment will continue to increase
- More partnerships will develop as others will want to "jump on the band wagon"

INDICATORS/SOURCES

- Safety records
- NRG annual reports
- Placement Office graduate surveys
- Industry Advisory Board meetings

REPORTING PROCESS

• Dean

RESOURCE REQUIREMENTS

• Current major equipment donations have required an initial cash outlay, minimal annual lease payments and installation costs. With the price of printing presses being \$250,000 and up, the university must be willing to commit to matching fund raising efforts and paying installation costs up to \$50,000.

Design, Manufacturing and Graphic Arts

Program:	Graphic Arts Department
Date:	October 5, 1998
Prepared by:	Pat Klarecki, Program Coordinator

Goal 1:(Long Term 3 – 5 Years)Build enrollment to a level that does not have a negative impact on quality
but does improve productivity as defined by the institution.

Fall	Freshmen	Sophomore	Junior	Senior	Total
1999	45	30	20	20	115
2000	50	35	25	20	130
2001	53	40	30	25	148
2002	55	45	35	30	165

MAJOR ACTIVITIES:

- We will continue to be active in high school visits, Graphic Arts High School Tour Day, Technician of the Future Day, etc.
- We will introduce a new curriculum to the senate for Fall '99 that will allow for additional transfer students.

RESOURCE REQUIREMENTS:

- Recruiting travel -- \$5,000 annually.
- Technician of the Future Day -- \$500 annually.
- Scholarship money -- \$1,000 annually.

Design, Manufacturing and Graphic Arts

Program: Graphic Arts Department

Date:

Prepared by: Pat Klarecki, Program Coordinator

Goal 2	(Long Term 3 – 5 Years)
	Teach our students the skills required by the rapidly changing print and
	digital communications industry.

MAJOR ACTIVITIES AND PROCESSES:

- The faculty has reviewed all the data collected from our industry and assessed our industry's needs.
- Current curriculum will be continually reviewed.
- New curriculum/programs will be presented to the Senate Winter '99
- New courses will be offered Fall '99.
- Outcomes assessment tools have been developed.
- Emphasis will be placed on faculty development to increase faculty knowledge in these new technical areas.
- Acquire new equipment to replace outdated or increase student work stations and productivity.
- Receive accreditation from GATF.

EXPECTED OUTCOMES:

- New curriculum will be more flexible allowing for continual change and revision to meet the
- dynamics of our industry.
- Students will be prepared to meet challenges of our changing industry.
- Productivity improvements.
- Faculty will be more knowledgeable.
- Quality of instruction will improve.
- Become the national center for new media and print technology.

INDICATORS / SOURCES:

- Outcomes assessment are pre-tests / post tests.
- Surveys already taken of industry.
- Advisory committee review.
- Placement data.

REPORTING PROCESS:

• Dean.

. 1

Design, Manufacturing and Graphic Arts

Program: Graphic Arts Department

Date:

Prepared by: Pat Klarecki, Program Coordinator

Goal 3: (Long Term 3 – 5 Years)

Implement our instructional lab continuous improvement plan.

MAJOR ACTIVITIES AND PROCEDURES:

- Secure funding from the university.
- Stay current with software upgrades.
- Continue to work with machinery manufacturing companies (press and bindery) to get donated or consigned equipment.
- Get support from the university to assist in equipment installations.

EXPECTED OUTCOMES:

- Productivity will increase.
- New courses/programs can be offered.
- Enrollment will increase.

INDICATORS / SOURCES:

- Enrollment data.
- Productivity report.

REPORTING PROCESS:

• Dean.

RESOURCE REQUIREMENTS:

• Commitment of a minimum of \$50,000 a year for the next five years for lab equipment.

IMPACT OF THIS GOAL:

- The current situation of students coming from high schools with experience on higher version software should be eliminated.
- Hardware will not reach a point of obsolescence forcing us to use low-tech servers and support systems.
- Ferris will remain on the list of the top five programs in the USA for print and new media print technology.
- Less time and money will be spent on repair and down time support.

•

FY 2000 Unit Action Plans Responses	VP & Presidents <u>Response</u>	Comments
Manufacturing Tooling Add tenure track faculty position.	Support	Continue funding as full-time Position. Add tenure-track faculty position to replace one-year temporary position. Approved as base increase.
<u>Technical Drafting Tool Design</u> Students will expand current knowledge and skills.	Hold	Pending Voc Ed eligibility.
Welding Technology Increase the number of graduates in the AAS degree Welding Technology Program to 35.	Support	For consideration from central pool.
Manufacturing Engineering Develop automation and simulation labs.	Support	VP -For consideration from central pool. President – Support VP, but Explore simulation program at MOTT CC.
<u>Technical Drafting/Tool Design</u> Upgrade computer monitors from 14" to 17" diagonal in Swan 503.	Hold	VP -Pending Voc Ed eligibility. President – Support VP, but also insure any upgrade is part of multi-use labs.
Welding Technology Review and procure current technical software and required computer hardware.	Hold	Pending Voc Ed eligibility.
<u>Technical Drafting Tool Design</u> Provide students with hands-on Experience assembling and disassembling tools, etc.	Hold	Pending Voc Ed eligibility.
Manufacturing Tooling To provide course specific software and hardware.	Hold	Pending Voc Ed eligibility.
Manufacturing Tooling Provide technically equipped classroom/ staging area located adjacent to MFGT lab facilities.	Hold	Pending Voc Ed eligibility.

]] _]}

J]

.]]

<u>Product Design Engineering</u> Administer course evaluation in all PDET courses.	Support	No funding.
<u>Manufacturing Tooling</u> Help students to become active in professional organizations.	Support	No funding.
<u>Manufacturing Engineering</u> Non-instructional summer assignment – develop pace rating and time study videos.	Support	No funding.
Manufacturing Engineering Acceptable level of students and student persistence in program.	Support	No funding.
Mechanical Engineering Enhance curriculum with additional lab experiences.	Support	No funding.
<u>Graphic Arts</u> Student recruitment/increase enrollment.	Support	VP -For consideration from central pool. President – Support recruitment and retention effort.
Manufacturing Tooling Enhance enrollment and improve student retention.	Support	For consideration from central pool.
Welding Technology Implement a welding technology pre-test/ post-test.	Support	
<u>Welding Engineering</u> Implement a welding engineering B.S. pre-test/post-test.	Support	
<u>Manufacturing Tooling</u> Produce graduates with knowledge and skills necessary to enter Manufacturing Tooling profession.	Support	
Mechanical Engineering Develop Bachelors of Science in Mechanical Engineering Technology.	No	Not at this time.
Design Division Provide upgraded hardware for computer lab in Swan 105A.	Hold	Pending Voc Ed eligibility.

1

1

J

.]

Graphic Arts

: 1

]

.]

.)

]

.]

 \int

 \Box

 \sum

Start "New Media Printing and Publishing Tech" BS degree.

Support

No funding. Need more information about the cost implications.

<u>Graphic Arts</u> Increase instructional productivity.

Hold

Pending Voc Ed eligibility.

Status?

FERRIS STATE UNIVERSITY



Registration and Program Tours

2.00 is 200 Lunch

October 19

Man 2000 Campus Tours/Admissions and Financial Aid Seminar

- Theok on the rearry have the weeky complexiting eranding and encode reaching

She'n asy the new condensities and the sense "Sweet Rectanced Control or spectrum and the sense of the sense

reared to Rig Rapids" (Maloondel's MotureRappellos onde, Rearing Mores)

Contraction concerner when our should make a concernation of the union research

Visit our web site at http://graphicaris.ferris.edu



School Name:

Instructors Name:

Number Attending:

EERRIS STATE UNIVERSITY



CPTronic

Macintosh G3

61 190019



the Ferris State University



FERRIS STATE UNIVERSITY

APPENDIX D



October 21, 1999

Robin Miller 2268 Lincolnway West Ligonier, IN 46767

Dear Robin:

1

I am writing to you on behalf of Ferris State University and the Printing and Digital Graphic Imaging and Printing Management programs.

As Vice President of Manufacturing for one of northeast Michigan's largest printing companies, I want you to know you are thinking about entering one of the most dynamic industries today. I am not aware of any industry that has seen as much growth and provide as much opportunity in such a wide area of interests. From sales to accounting, creative design to machine operator, computer imaging to office administration, you can find it all in the printing industry.

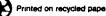
I am also an alumnus of FSU and their printing programs. There simply is not a better university anywhere in the Midwest for you to get the academic preparation for a rewarding career in the printing industry. If you have not visited their facilities, you should schedule an appointment soon. Big Rapids, Michigan is just a short drive from just about anywhere.

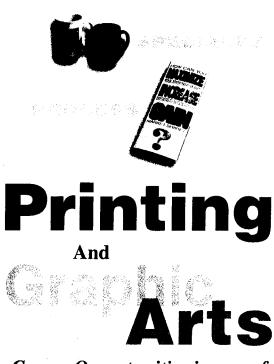
To schedule a tour, please call Patrick Klarecki, the program coordinator, at (231) 591-2845. I hope you choose Printing and Ferris, they are an unbeatable combination.

Sincerely,

pe Corceran

Joseph Corcoran Vice President of Manufacturing





7

Career Opportunities in one of America's Largest Industries

