

MICHIGAN STATE UNIVERSITY

January 23, 2007

MEMORANDUM

TO: Dr. Doug Estry, Acting Associate Provost for Undergraduate Education
and Acting Dean of Undergraduate Studies

FROM: Dr. Linda O. Stanford, Associate Provost for Academic Services

RE: Request for approval of Guidelines for Institute of Agricultural Technology
(IAT) students to transfer to baccalaureate programs at MSU

For Transmittal to the University Committee on Academic Policy (UCAP)

The request referenced above is being sent to you for action by the University Committee on Academic Policy (UCAP).

UCAP Response Requested:

The College of Agriculture and Natural Resources is requesting approval of the attached Guidelines for Institute of Agricultural Technology students to transfer to baccalaureate programs at Michigan State University. The addition to the catalog text is shown in red on the attached Academic Programs Final Text document.

I also attach a rationale from the College of Agriculture and Natural Resources.

Please ask the UCAP to consider the request referenced above at its meeting on January 25, 2007. Please mail the related materials referenced under the heading Attachments at the end of this memorandum to the members of the UCAP.



**UNIVERSITY
CURRICULUM
and CATALOG**

Michigan State University
176 Administration Building
East Lansing, Michigan
48824-1046

PH: 517/355-8420
FAX: 517/353-1935

The UCAP alone will consider this request.

If you have any questions about this memorandum or the attached materials, please call Joy Speas, University Curriculum Administrator at 5-8420.

Thank you for your help.

Attachments:

1. Proposed Catalog Text showing Guidelines for IAT students to transfer to baccalaureate programs at MSU.
2. Rationale provided by the College of Agriculture and Natural Resources

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INSTITUTE of AGRICULTURAL TECHNOLOGY

Eunice F. Foster, Director

Founded in 1894, the Institute of Agricultural Technology delivers innovative, educational programs that develop career-ready graduates through intensive, practical learning and skill enhancement in agricultural, environmental, and applied technologies.

The Institute seeks to prepare students for dynamic careers in a changing world. Certificate programs vary from 10 to 24 months in length, are highly respected statewide and nationally, and several have international reputations. Classes are taught by faculty and staff in the College of Agriculture and Natural Resources, so students gain from the research and extension programs at MSU. For additional information on any of the certificate programs, write to the Institute of Agricultural Technology, Michigan State University, 120 Agricultural Hall, East Lansing, MI 48824-1039.

PROGRAMS

Agricultural Industries

One of every six jobs in the American economy is related to agricultural and food businesses. The curriculum in the Agricultural Industries program is designed to provide students with the technical and business skills necessary to be successful in any of these related fields. Career opportunities range from managing a farm or business (cash crop, animal, or fruit/vegetable) to working in the banking or farm credit industries. Ample opportunities are available in the management of farm supply stores or cooperatives, in agricultural input sales, in the insurance field, or in a number of agricultural processing and manufacturing industries.

The Agricultural Industries program allows students to customize their educational program to fit their own personal career goals. This program has two main areas of study – agronomy and business. However, the student who has an interest in the animal industry may obtain foundational knowledge in the species of his/her choice.

Attractive starting salaries are offered. Advancement opportunities are excellent for those who prove themselves on the job. Initiative and ability determine how fast progress can be made towards a management position.

Applied Plant Science

Employment and career opportunities continue to expand for those who have training and educational preparation in applied plant science. In response to this regional plant industry need, Northwestern Michigan College (NMC) and Michigan State University offer a combined program, which enables students to complete an NMC Associate of Applied Science degree as well as an MSU Institute of Agricultural Technology certificate - without leaving northern Michigan.

Bringing together the world-acclaimed expertise of Michigan State University's College of Agriculture and Natural Resources and the "close to home" convenience of an outstanding community

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college - Northwestern Michigan College in Traverse City – the Applied Plant Science program prepares graduates for a wide range of employment and career choices. Each student receives personal, one-on-one help in selecting her/his program of study (including workplace internship). Students may earn their certificate in Applied Plant Science with options in Commercial Horticulture Operations or Commercial Turfgrass Operations.

Beef Cattle Management

This program allows specialization in the area of beef cattle management in a one-year intensified program. It provides knowledge and experience in the management of both cow/calf and feedlot enterprises. There is a demand for industrious young people with practical experience to fill positions of responsibility as herd managers, assistant herd managers, and other livestock-related jobs.

Agriculture, in this rapidly changing era, requires aggressive young people who have specialized training in modern scientific practices. While the demands for success are great, the opportunities for success are limited only by a person's desires or imagination.

Dairy Production

Because dairy farming is among the leading agricultural enterprises in Michigan, the dairy program has been developed to meet the specialized needs of the herd manager and commercial dairy farmer. Opportunities abound for persons with the combination of classroom training in the areas of dairy husbandry, nutrition, artificial insemination, crops, and farm management and the practical experience that may be obtained on any of the many cooperating dairy farms in Michigan and the surrounding states. Programs of study tailored to meet the individual's wants and needs are designed around the subject matter areas of agricultural economics, communications, crop and soil sciences, and agricultural mechanics. Additionally, students learn about the continuing changes in rural living, which have a great influence on agriculture.

Electrical Technology

There is a need for highly trained electricians. Electrical contractors need electricians capable of planning complex wiring and solving difficult wiring problems. Wiring systems today are complex. In some cases, equipment breakdowns must be repaired promptly to avoid devastating losses.

The Electrical Technology program is a complete electrical apprenticeship program recognized by the State Electrical Administrative Board. Graduates of the program receive credit for two years of experience by completing only 15 months of training. Four years of experience are required for the State Journeyman Electrician License Exam.

The program covers residential, farm, commercial, and industrial wiring; single and three phase motors and generators; electrical control systems wiring, design and troubleshooting; lighting system design; electrical system design; heating; animal and human environment control; electrical estimating; and electrical business management.

Horse Management

The horse management program places emphasis on acquisition of equine husbandry skills that will prepare students for jobs in the ever-growing horse industry or for the management of their own farms and horses. Students are required to complete a one-semester placement training experience working with professionals in the horse industry. Study abroad opportunities may also be incorporated into the student's program. The horse industry has exciting job opportunities for students who have a passion for horses and a strong work ethic. Students who complete this program will be prepared for positions ranging from assistant trainers to managers of small farms and from racetrack grooms to tack and equipment sales personnel.

Landscape and Lawn Management

The Landscape and Lawn Management program is a unique partnership between the Michigan State University College of Agriculture and Natural Resources' Institute of Agricultural Technology and Grand Rapids Community College. This program provides students an opportunity to gain the necessary skills for a successful career in the billion-dollar landscape and nursery industry without leaving the Grand Rapids area. Graduates of the program work as owners, managers, buyers, or salespersons in retail firms, commercial landscape construction and maintenance operations, and as well as for private enterprises.

The program combines the theories and principles of classroom instruction with the practical experience of placement training. Although the emphasis is on landscape and lawn management, other important aspects of a college education are included. Students are required to take courses in fields such as written communications, botany, business management, computer science, soil science, plant pathology, entomology, ornamental plant identification, and much more.

Upon completion of the program requirements for the certificate, students also have the option of completing 18 additional credits at Grand Rapids Community College to obtain an Associate of Applied Arts and Sciences degree. The additional courses are in business, chemistry, written communications, humanities, and social science.

Landscape and Nursery

The current demand for landscape horticulturalists is due to the rapid expansion in industrial and home landscapes as well as city, state, and environmental improvement projects. Graduates of the program work as owners, managers, buyers, or salespersons in retail firms, commercial landscape construction, and nursery production firms as well as for private enterprises.

The program combines the theories and principles of classroom instruction with the practical experience of placement training. Although the emphasis is on landscape and nursery, other important aspects of a college education are included. Students are required to take courses in fields such as communications, botany, biochemistry, soil science, plant diseases, and personnel practices.

The Landscape and Nursery Program is offered by the Department of Horticulture in cooperation with the Institute of Agricultural Technology in East Lansing and in Traverse City.

Organic Farming

Organic farming is one of the fastest growing and expanding areas of agriculture. There are viable business opportunities for small-scale producers to meet the consumer demand for fresh, local vegetables, fruits, and herbs by marketing at the growing number of farmer's markets, community supported agriculture (CSA) farms, and other direct and wholesale markets. This 12-month program (January to December) provides an introduction to intensive and year-round organic farming. The program consists of coursework, the operation of a diversified small-scale organic farm on the MSU campus, and a 16-week placement training or apprenticeship on a working farm or with a community or urban garden project. The emphasis is on the production of vegetables, fruit, herbs, and cut flowers with CSA and farm stand marketing. Winter production occurs in unheated and heated greenhouses. The curriculum includes how to build and maintain soil quality and fertility primarily with on-farm resources and farming methods that cultivate a diverse, profitable and resilient farm. No previous farming experience is required. We welcome applicants seeking a new direction and employment related to organic farming and gardening, community and urban garden projects, and other food system and environmental careers.

Swine Management

Food production, including that of pork, is increasing along with the world's population due to the use of scientific technologies and skilled people. If we are to keep pace with the growing population, we will need more of these two vital inputs. The tasks of developing new technologies and new human resources are equally challenging.

The swine management program is designed to prepare people for careers in modern pork production anywhere in the world. The one-year program judiciously balances "hands-on" training with classroom instruction in the areas of animal care, nutrition, housing maintenance, swine health, reproduction, records management, environmental management and personnel management. Students also gain practical experience through a summer-long internship on a commercial swine farm in Michigan or beyond. Swine management graduates will have numerous career opportunities including: farm owners/operators, managers or assistant managers (breeding herd, farrowing, nursery, grower-finisher, transportation, feeds, marketing), department supervisors or regional representatives.

Turfgrass Management

A rapidly expanding turfgrass industry offers many challenging job opportunities for trained personnel. The growing demand for recreational areas and rededication to the maintenance of beauty in America has created a shortage of turfgrass specialists.

Golf Course Emphasis

The golf course emphasis provides the fundamentals of turfgrass technology necessary primarily for the supervision and management of golf courses. Attractive starting salaries and many job opportunities are available with excellent potential for advancement. Previous work experience on a golf course maintenance crew is expected.

Sports and Commercial Turf Management Emphasis

The sports and commercial turf management emphasis is designed for persons interested in careers in these areas. These

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are rapidly growing areas of turfgrass management and offer rewarding job opportunities.

Program offerings in both emphasis areas are integrated with other areas in turfgrass and landscape and nursery. Courses include technical, communication, mathematics, and business content. Placement training opportunities are offered at many leading industrial businesses.

Admission

Applicants for technical programs must be high school graduates. A strong background in communications, mathematics, and science will help prepare the student for successful completion of a technical training program.

The admission process includes a consideration of the student's academic record, work experience, recommendations from employers, test scores, and other criteria. In some cases, students may be invited to Michigan State University for an interview.

Financial Aid

Institute of Agricultural Technology students are eligible for financial aid. Scholarships are provided by industry groups and individual business firms and are awarded to students who have demonstrated superior scholastic ability or an outstanding work record.

Veterans Education

The programs offered by the Institute of Agricultural Technology are approved by the Department of Veterans Affairs as Cooperative Veterans Training Programs. Under some Chapters of Title 38, U.S. Code, veterans may receive educational benefits. Veterans planning to enroll should contact the Veterans Certification Section of the Office of the Registrar to determine their eligibility.

Michigan Works

Students in the Institute of Agricultural Technology are eligible for sponsorship under the guidelines of the Michigan Works Program. Students must arrange sponsorship with the appropriate Michigan Works office.

Institute of Agricultural Technology Transfer Student Admission

Institute of Agricultural Technology students who have completed their respective Institute of Agricultural Technology programs will, upon completion of the applications process, be considered for transfer admission to Michigan State University. Acceptance is determined by the applicant's previous academic record and his or her proposed program.

To complete the application process, the student must:

1. Complete and submit a signed request (*Student Intent to Transfer Form*) to the Institute of Agricultural Technology, as soon as the student develops an interest in transferring, in order to inform the Institute of Agricultural Technology of the desire to transfer to a baccalaureate program. The request must be signed by the program coordinator and by the Institute

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- of Agricultural Technology Director in order to facilitate proper student advising by the Institute of Agricultural Technology.
2. Have a minimum grade point average of 3.0 upon completion of the Institute of Agricultural Technology program and satisfy all other requirements for admission.
3. Earn a minimum grade of 2.0 in WRA 110 or its equivalent.
4. Earn a minimum grade of 2.0 in MTH 103 or its equivalent.
5. Apply to the baccalaureate program using the application form from the Office of Admissions and Scholarships. It is recommended that students apply at the beginning of the semester they are to graduate from the Institute of Agricultural Technology.
6. Additional requirements may apply for limited enrollment programs.
7. Complete all other undergraduate application requirements.

***Request to Establish a Procedure for Students to
Transfer/Matriculate from the Institute of Agricultural Technology
to Baccalaureate Programs at MSU***
1-22-07

The Institute of Agricultural Technology (IAT) has served the citizens of Michigan since 1894, providing an outstanding education for those who think they do not desire a baccalaureate program. At times, success in the program helps students develop a desire to continue their education. Annually from Fall 1994 through Fall 2004, 3.6% of the IAT students transferred to baccalaureate programs at MSU. These students have demonstrated their academic capability via their performance in IAT and in the baccalaureate programs in which they subsequently enrolled.

The Cherry Commission Report validates the need to provide as many avenues as possible for Michigan citizens to progress beyond post-secondary education and to progress as far as possible in the arena of post-secondary education. The academic performance of IAT students who have transferred to baccalaureate programs at MSU demonstrates that IAT remains a mechanism by which IAT students who meet specific criteria can transition to baccalaureate programs.

Decades ago, it was decided that MSU would not award an associates degree. However, we can be creative in crafting a program for those who seek to advance their education

**Previous and Current Success of Students Who Transfer Between the
Institute of Agricultural Technology (IAT) and Baccalaureate Programs at
MSU**

Between Fall 1994 and Fall 2004, 127 students transferred **from baccalaureate programs** at MSU to the IAT. Eighty-two of them (65%) had graduated from IAT as of Spring 2004. Average baccalaureate gpa at the time of transfer was 2.35, with a range of 0.62 to 4.00. Average IAT gpa of these students after transfer was 3.42, with a range of 0.29 to 4.00.

Between Fall 1994 and Fall 2004, 142 students transferred **from IAT to baccalaureate** programs at MSU. This represents an annual average of 14 students or 3.6%, given the average annual enrollment of 383 students in IAT from Fall 1994 to Fall 2004. The average gpa at the time of transfer from IAT was 3.30 with a range of 1.93 to 4.00. The average baccalaureate gpa for these students was 2.55, with a range of 0.0 to 3.85.

Seventy-one or 50% of those who transferred from IAT had graduated from baccalaureate programs as of Spring 2006 and 8 additional students were still enrolled and in good standing as of Spring 2006. Thus, 56% of the transfers from IAT to baccalaureate programs are on track to graduate. The remaining 63 students who transferred to baccalaureate programs did not graduate, but **ONLY** 25 of the 63 (39%) had grade point averages lower than 2.0. Thus, 117 or 82% of the 142 students who transferred from IAT to baccalaureate programs maintained good academic standing in their baccalaureate programs. Therefore, thirty-eight

of the 63 students who did not complete their programs, left for reasons other than poor academic standing.

Most of the IAT students completing baccalaureate programs have graduated with degrees from the College of Agriculture and Natural Resources, but others have graduated with degrees in philosophy, telecommunications, education, supply chain management, criminal justice, and psychology.

In addition, ten IAT students have completed their master's or doctoral degree at MSU. The Department of Crop & Soil Sciences has a tenured associate professor who graduated from IAT. One of the current IAT instructors graduated from IAT and now has his doctorate. The May 2005 commencement speaker for IAT was an IAT graduate who is now in a tenure stream position at the University of Kentucky. I know the associate dean of his college at Kentucky and she raves about the wonderful work he is doing in the turfgrass program there.

The graduation rate of IAT students who transferred to baccalaureate programs at MSU compares favorably to that of all other students admitted to baccalaureate programs at MSU.

Proposal Compatible with IAT Programs

The proposed transfer procedure would not disadvantage IAT students, since they take the Accuplacer placement test upon entry to IAT. The Accuplacer test is utilized by Lansing Community College (LCC) and by many other community colleges in Michigan. Thus, IAT students would be positioned to begin making progress towards completion of college English and college mathematics at LCC or at many other community colleges in Michigan. In addition, LCC East is located off Hagadorn across from MSU and currently offers the following English and mathematics courses, shown below with their MSU equivalencies:

<u>LCC Course</u>	<u>MSU Equivalent</u>
ENGL 122	WRA 110
MATH 112	MTH 1825
MATH121	MTH 103
MATH 126	MTH 116
MATH 121 + 122	MTH 116
MATH 130	MTH 110
MATH 141	MTH 124

During the 2004 IAT Summer Orientation Program the Accuplacer Test was given on a trial basis to incoming students in four IAT programs and was required of incoming students in all IAT programs as of the 2005 Summer Orientation Program. The Accuplacer Placement Test is done online in a proctored setting and the results are accepted by LCC and by all other Michigan community colleges that use the Accuplacer exam. Thus, students can begin taking courses at almost any community college of their choosing.

The proposed transfer procedure would not lower MSU admissions standards, would have IAT students completing the same requirements as students transferring from other

institutions (in fact higher math standards are proposed), and would recognize the bond the IAT students already have with MSU and the high success rate that current and former IAT students have had in MSU baccalaureate programs.

Conclusion

Since 1894, IAT has changed to meet the needs of the citizens of Michigan. That process continues. The two recommendations are part of that process and support the Cherry Commission's call to create additional mechanisms to increase the number of Michigan citizens in post-secondary education and to increase their advancement in post-secondary education.