

**Muskegon Community College
Academic Master Plan
2007 - 2011**

December 4, 2006

Executive Summary

The development of Muskegon Community College's first Academic Master Plan (AMP) has taken approximately eighteen months to complete. Many hours and much debate have resulted in a comprehensive plan that will serve as the benchmark for future program development at the College.

Participation in the development of the AMP has been inclusive, with input being received from all corners of the campus. Faculty and staff members consistently offered their expertise as ideas were discussed and dreams presented for inclusion in the final product. The many suggested courses of action found in the AMP are a direct result of open dialogue among many people committed to the institution's continued prosperity.

The review process involved in preparing the AMP demanded an examination of individual discipline areas, program performance indicators, regional and national employment data, and concerns relating to our immediate service area. Program recommendations were derived from this information and are presented in the plan. Relevant data are presented in the appendices to this plan. Essentially, the appendices show what was reviewed; the body of the AMP demonstrates where we are going with the information.

The reader will find the AMP to be organized along lines similar to our approach in the Assessment arena. Recommendations are presented that impact *Liberal Arts Programs, Occupational Programs, Learning Skills offerings, our community enrichment efforts, and concerns related to Institutional Excellence*. Recommendations of a global nature that affect Academic Affairs are also discussed.

Additionally, the teams felt that the final direction of the AMP should support the outcomes espoused in the College's mission statement:

1. Prepare students for successful transfer to four-year Colleges and universities, and enable students to pursue higher-level degree opportunities through our local partnerships with university programs.
2. Develop technical and vocational skills necessary to enter and/or advance in the technologically sophisticated workplace of the 21st century.
3. Provide for the assessment and/or improvement of learning skills and attitudes necessary for a successful educational experience.
4. Meet the unique educational, cultural, and societal needs in the community through special courses, seminars, and exhibits.
5. Respond in a rapid fashion to the ever-changing educational and training needs of local and regional business and industry.
6. Stimulate intellectual curiosity, promote humanitarian values and enhance the general educational experiences necessary for persons to function as effective citizens.
7. Create an atmosphere where diversity is acknowledged and encouraged.

8. Provide comprehensive student services that are conducive to student learning and satisfaction in all facets of the College experience and appropriate to an open door community College.

The final AMP presents a collective vision for the next five years of academic programming. We have focused on desired outcomes for our students and improving learning opportunities for them. We have created a shared vision which says it is time to refocus some of our efforts and recreate some of our program offerings. The AMP is the template that will guide our efforts over the next five years.

Introduction

From the beginning, the AMP process has been an inclusive one, drawing on the talents of many different members of the MCC community. Department chairpersons and others were assigned a reading project for the summer of 2005. They read two books during that time, the first being *Good to Great* by Jim Collins, the second being *Prioritizing Academic Programs and Services*, by Robert C. Dickeson. The purpose of this assignment was to familiarize all concerned with concepts of planning and reorganizing from both business and academic points of view. The ideas contained in these two books would form the basis for much of the discussion over the next 18 months.

As a prelude to the actual planning, President Rule provided some basic issues that the AMP must at least consider, if not ultimately adopt, as priorities. These include:

1. Opportunities in health related careers.
2. Importance of Ottawa County for MCC.
3. The impact of the Career and Technical Center (CTC) on MCC's campus.
4. The need for a presence in downtown Muskegon.
5. Changing demographics and population trends in Muskegon County and surrounding region.

Additionally, the AMP teams felt that another topic deserved consideration from a macro viewpoint, that being the potential impact of technology on our programming. Therefore, that issue was also discussed at length as a global issue relevant to the completion of the AMP.

The potential impact of these challenges is obvious to the long term positioning of the campus. Cognizant of the need to investigate these issues, the planning teams undertook extensive discussions aimed at formulating strategies to address them.

Armed with this knowledge, the official kick-off of the project was held during seminar days for fall semester 2005. There, all faculty members and other key staff members were introduced to the concept of academic planning and informed as to the goals of the AMP project. Timelines were established for the completion of the project including a schedule of meetings to be held and objectives to be completed along the way.

The first area of inquiry we explored was that of the College's vision, mission, and goals statements. The fall semester was a time for consensus building among the team regarding our success at living up to the statements contained in our vision, mission, and goals. Establishing this foundation and answering the question "Where are we now?" was important if we were to all have the same frame of reference.

Through a series of well attended meetings in the fall semester, the team debated and discussed the merits of our vision, mission, and goals and our relative success at meeting the mandates contained in them. Ultimately, the group arrived at a series of consensus recommendations that slightly alter the three documents and are representative of what the College should strive to be from the Academic perspective. These recommendations

have been presented to the institution's Strategic Planning team and are included here as Appendix 1.

It should also be noted that the teams involved in the preparation of this plan established specific principles relating to our desires of what the AMP should accomplish.

Operationally, the AMP should:

- Advance the College's strategic plan by supporting and contributing to the achievement of its goals.
- Improve student performance by fostering a culture of excellence in learning as our primary focus.
- Emphasize program and student assessment.
- Focus our economic development efforts on displaced workers by retraining and educating them to re-enter the workplace.
- Pursue community partnerships by expanding opportunities for senior citizens, business and industry outlying geographic areas and K-12 Institutions.
- Prepare students to successfully transfer to four-year institutions.
- Focus on hiring the most qualified instructors to fill full-time and adjunct faculty positions and nurture their professional growth.
- Recognize and respond to changing community needs.

What was a benefit for us in the mission related discussions soon became a detriment to real progress toward the ultimate goal. Large group meetings were an advantage in reaching agreement on this global issue, but were not conducive to getting real planning work done. Therefore, three different work teams were established to work on separate issues that eventually fed into the AMP.

Team Structure

Three committees were established to facilitate further planning. They are:

- The Data Committee
- The Opportunity Team
- The Steering Committee

The members of the respective teams are listed in Appendix 2.

1. Data Committee

The Data Committee was established with the goal of identifying and prioritizing data needs required for the informed completion of the AMP. Areas of focus for the data committee have included cost/revenue analysis, MCC image concerns, and student success measurements. The data committee objectives included:

- a. establishing a plan to quantify more activities with reliable assessment tools
- b. obtaining benchmarking data to better understand "where we are"
- c. prioritizing initially identified needs
- d. sharing results and findings

Much of the data collected relates to issues such as:

- The regional employment outlook for west Michigan.
- Specific employment data for Muskegon County.
- The outlook for high demand careers in the next five years.
- Costs vs. revenues on a program-by-program basis.
- Three years of enrollment data for all programs.
- Student success measures presently being used.
- Image studies previously conducted for MCC.

A substantial amount of data collected by the data sub-committee represented inquiry into the changing landscape of our community. It would be short-sighted to ignore the implications of these findings as the characteristics of the market are changing. Key findings of this research are:

1. The population of our service area is an aging one. K – 12 enrollments are falling and the median age is rising. (Appendix 3)
2. The number of residents who speak a language other than English as their first language has increased and will continue to grow. (Appendix 4)
3. The minority population remains relatively constant at approximately 17% of the population, but that number is expected to grow as well. (Appendix 5)
4. Muskegon County residents remain woefully behind the state of Michigan in the attainment of at least a Bachelor's degree with only 13% having achieved this level of education vs. approximately 24% nationwide. (Appendix 5)
5. Unemployment rates remain above the state average at 6.3% as of October 2006. (Appendix 6)
6. Evidence suggests that west Michigan is growing as a destination for retirees.
7. The lack of workers prepared to function in the knowledge economy threatens Muskegon's ability to achieve a much needed economic resurgence.

These data elements, plus others, were made available to all those who worked on the AMP project and served as a baseline of information from which the plan was created.

2. Opportunity Team

The Opportunity Team was formed to assess and prioritize both present and future programming opportunities. This committee recommended courses of action related to future academic programs, outreach efforts, and other areas relevant to academic needs.

The Opportunity Team held regular meetings and has developed a process for review and critique against which all new ideas and proposals will be vetted. As we examined new opportunities, the following criteria were used to assess the appropriateness of each:

- a. fit of the proposal to the College's mission, vision, and goal statements;
- b. data to support the viability of the proposal;
- c. cost/revenue analysis; and
- d. implementation plan.

3. Steering Committee

The AMP Steering Committee was charged with reviewing, prioritizing, questioning, and recommending future courses of action based on input received throughout the AMP project. Keeping the process on track was of primary concern to this group.

With information and data from the other AMP committees, the Steering Committee wrote the AMP.

The finished AMP reflects thorough research and evaluation of both community and regional needs and opportunities for the future. The foundation for the AMP was an extensive program review which culminated in the assessment of much data relative to program performance and contribution to student learning. Coupled with the extensive secondary data collected relating to labor and market conditions and future projections for the same, the end result is an AMP which provides a road map for the future which will enable all of us to make informed decisions as to potential directions to pursue.

As the reader reviews the strategies, recommendations, and directions presented in this plan one will note that the potential impact of this plan on MCC is substantial. Goals and objectives for future direction are included at both the program and discipline levels. New initiatives are presented for consideration as well as future adoption. Concerns are expressed relative to resources (both human and monetary), facilities, and impact on the rest of the campus. It is clear that the implementation of various strategies highlighted in the AMP will have ripple effects on the rest of the campus. It is therefore important to note that the AMP takes its lead from the College's Strategic Plan while concurrently providing direction for the development of the remaining set of plans for the College's future.

Market Context – Data

The Data Committee collected and reviewed a large amount of data for the Academic Master Plan. The data confirmed many of our assumptions about educational preparation for our students. However, some of our assumptions were challenged by data that showed a much brighter future for careers that we thought were in decline. Our general findings based on the data require that the educated workforce of the future be knowledgeable in many different disciplines.

While the future is hard to predict, the State of Michigan and the Federal Government have provided data sets that identify critical occupations for the Muskegon area, the State of Michigan and the United States. Understandably this data is not a complete list, but rather a guide for what most likely will be critical through 2012. (Appendix 7)

For the Occupational Programs, Public Safety officer (including correctional officer, police officer and parole officer) is definitely a critical occupational need for Muskegon, the State and the United States. According to the data, more specialized curricular options should be examined. Currently the Social Science department is exploring a Geographic Information Systems (GIS) curriculum with the Criminal Justice, Computer Aided Drafting (CAD) and Computer Information Systems (CIS) disciplines. An option for interdisciplinary study offering career promise also exists with GIS and Environmental Science. (Appendix 8)

Contrary to media reports, manufacturing continues to grow in the Muskegon area. More specialized training in electronics, machining and plastics have been identified as critical. (Appendix 7) Computer support personnel are needed now to work in a variety of roles, from help desk support to computer repair to software installation technicians. New and emerging technologies such as Radio Frequency Identification (RFID) will be important fields of study as the technology is implemented more and more by business and industry. (Appendix 8) Automotive career opportunities continue to grow as well. Specialized training options to include diesel and hybrids as well as alternative fuels should be considered. Demand for those skilled in the automotive technology area is expected to grow at a rate of 10%. (Appendix 9)

The need for people to work in business settings, including office environments as well as upper and lower level management positions, will continue to grow. (Appendix 7) A different skill set will be demanded though for future supervisors and business leaders. Research shows many future career opportunities will demand that workers not only possess the technical skills associated with their chosen fields, but also the “soft skills” associated with dealing with people issues. Written and oral communication skills, decision making and problem solving abilities, and human relations skills will be prerequisites for success. Creativity and an understanding of the world around us will be essential. Special attention should be given to insuring the quality of the transfer option for the Business disciplines. (Appendix 7) Our AAS degree options must continue to emphasize a well rounded approach to the business world. Therefore, attention should be

paid to general education offerings for the Liberal Arts Transfer Program as well as the Occupational program. (Appendix 10)

Demographic changes in society will continue to produce an aging population. Because of these changes, one of the main areas of growth will be the need for people to work in health related fields. The demand for RNs and LPNs will continue to be strong. Additionally, workers trained as home health care workers, dental hygienists and pharmacy assistants will be in critical demand in Muskegon, the state and the nation. The growth in demand for Human Service and Social Work assistants will be important to support the population of Muskegon and the state of Michigan. (Appendix 7)

Along with the anticipated growth in demand for direct health care providers, the outlook is also strong for those looking to work in a supporting capacity in a health related field. With the nation's health care system continuing to be a complex arena, the need for skilled administrative support personnel will grow (Appendix 7)

The Liberal Arts Transfer Program will continue to lead the programs at MCC. A better educated workforce is critical to the area and is necessary for growth in Muskegon. Special attention should be paid to preparing students with the lifelong learning skills necessary for individuals' success. As mentioned above, the data suggest that working in the knowledge economy will require a broader background than ever before. (Appendix 10)

Career growth is expected in Elementary and Secondary Education due to anticipated retirements along with hoped-for population growth in the Muskegon area. Teacher preparation remains a viable option for us to pursue. (Appendix 7)

Liberal Arts Transfer Program Descriptions and Goals

The Liberal Arts Program provides for the study of the core of human existence and serves as a critical learning component for all students. It serves as the basis for lifelong learning by giving students the skills and abilities to succeed in the current career goals or any future goals as their lives change. The Liberal Arts faculty is committed to providing the greatest chance for students to succeed in baccalaureate programs, Master and Doctorate programs and in life in general.

The College shares the view held by many that an education should prepare a person not only for a career, but for life. We cannot anticipate all the careers that will evolve in the rapidly changing future. What will definitely be needed though are people who have a demonstrated ability to learn; people whose education has prepared them to respond proactively in an increasingly complex and technologically sophisticated future. It is primarily through the curriculum of the general education program for the Associates in Science and Arts Degree that the College seeks to help students acquire the knowledge and skills necessary to understand both themselves and the world in which they live. This degree automatically fulfills the MACRAO agreement. The Liberal Arts Transfer Program includes the departments described below.

The Liberal Arts Transfer Program was reviewed extensively in the 2005/2006 academic year. Based on results of the Transfer Program review and discipline reviews, plus research completed by the AMP process, recommendations were developed.

Recommendations

- Explore opportunities for expansion of dual enrollment and extension programs.
- Explore cross disciplinary programs with the Occupational division, especially the Health area.
- Investigate integrating more creativity classes into the curriculum.
- Comprehensive professional development opportunities for all faculty members must continue to be offered.
- Consistently conduct faculty evaluations so that we insure quality in the classroom and professional growth for faculty members.
- Work with the Office of Human Resources to develop a training program for Department Chairs.
- Investigate the current department structure and consider making changes to improve efficient and effective organizational operations.
- Explore a closer relationship with our higher education partners in the Stevenson Center for Higher Education for all of our transfer students.
- Investigate adding global content course(s) to other programs and to the graduation requirements.
- Continue to support lifelong learning.
- Investigate the opportunities to highlight Liberal Arts faculty in the co-curricular offerings.
- Explore opportunities for interdisciplinary approaches to team teaching.

- Evaluate the general education requirements for the ASA degree, including a thorough analysis of Academic Profile testing, and make recommendations to improve student learning.
- Investigate creating the position of Coordinator for General Education to consistently assess both the relevance of course offerings and the impact of general education on student learning.
- Increase our recruitment of College bound students to start at MCC.
- Improve the marketing of Liberal Arts programming and the Associates in Arts and Sciences degree as preparatory for critically thinking, ethical members of society.

In addition, in consultation with department chairpersons, many of the liberal arts disciplines were reviewed by their departments. These reviews are a focused look at a discipline's course offerings, teaching methods, and student outcomes. Modeled after the Self-Study and Evaluation of Occupational Programs (SSEOP) process, these reviews have utilized input from students and an outside evaluator to examine strengths and weaknesses and then set goals for future discipline direction. Additionally, each review has included a critique by a faculty colleague from a different discipline. The Vice President for Academic Affairs, Assessment Coordinator, and faculty members from the discipline meet to discuss the goals established by the review and follow up on that discussion to determine progress toward completion of the goals.

Creative and Performing Arts

The Creative and Performing Arts Department includes programs in Art, Dance, Humanities, Music, Philosophy and Theater. Its mission is actually three missions: 1) provide general education instruction and artistic experiences for degree seeking students 2) provide basic courses and creative experiences paralleling those at senior institutions for the first two years of a College major in these areas 3) enrich the quality of life for both the campus community and the greater Muskegon community by providing activities, leadership and performance.

Recommendations

- Explore opportunities for life long learning experience in the Creative and Performing Arts.
- Investigate expanding departmental offerings off campus.
- Encourage outreach to area schools.
- Investigate opportunities for guest artists to interact with students.
- Investigate ways to increase Faculty involvement in the Arts.

Art

- Work closely with the Museum to develop programmatic opportunities.
- Since creativity in the workplace is becoming increasingly important, investigate the possibilities of integrating Art courses into other Programs, including Occupational Programs. (Appendix 11)

Dance

- Continue to collaborate on course offerings with the Health, Physical Education and Recreation department.

Humanities

- Investigate other course offerings that may be used by other programs to give them an understanding of the human experience.

Music

- Investigate increased recruitment opportunities for music students.

Philosophy

- Investigate adding Philosophy classes that are specific to other disciplines.(e.g., Philosophy of Science)
- Continue to work towards the goals established by the discipline review. (Appendix 12)

Theater

- Investigate space and facility issues.
- Investigate re-establishing the Theater for Children program to involve and introduce area school children to Theater.

English/Communication Department

The English/Communication department offers classes in English, Writing, Literature, Journalism, Speech, Communication and Multi-Media production. This department serves both transfer and occupational students.

Recommendations

- Investigate opportunities for dual enrollment.

Communication

- Investigate developing a Multi-Media/Journalism degree plus a transfer option.
- Increase the pool of Adjunct Faculty by working with HR.
- Continue to work towards the goals established by the discipline review. (Appendix 13)

English

- Create an effective assessment tool to compare student success in online and face-to face classes.
- Train faculty in how to teach and evaluate critical thinking skills.
- Create an additional English computer writing center.
- Improve format and scheduling of final exams for ALL required composition classes.
- Hire more Adjunct faculty with Master's Degrees in English.

- Continue to communicate and articulate our expectations to groups like Muskegon Area Teachers of English and the Writers Center.
- Continue to work towards the goals established by the discipline review. (Appendix 14)

Foreign Languages

As the economy becomes more global, the need for understanding culture is essential. Foreign language offers students who complete an associate's degree and those who transfer opportunities for understanding other cultures. The Foreign Language Department offers Spanish, French, German and American Sign Language.

Recommendations

- Investigate offering other languages such as Chinese, Italian, Arabic, Japanese etc.
- Investigate offering a computer-based language learning system in a dedicated foreign language lab setting.
- Investigate developing a one semester study abroad program with other community Colleges.

American Sign Language

- Research the possibility of including American Sign Language as a Foreign Language Requirement.
- Investigate creating an ASL certificate Program.

French

- Increase web visibility of French on the MCC website.

German

- Increase the cultural awareness and competence component in German classes.
- Increase web visibility of German on the MCC website.
- Increase outreach to the business community with German course offerings tailored to their needs.
- Continue to work towards the goals established by the discipline review. (Appendix 15)

Spanish

- Expand the Library holdings to include more books, cultural DVDs and music that are available to students and faculty.
- Establish more "real life opportunities" for students including a travel abroad program.
- Assist in the development of a Foreign Language club.
- Develop language learning opportunities for the business community and for personal interest.
- Create a dedicated Foreign Language Lab.

- Continue to work towards the goals established by the discipline review. (Appendix 16)

Health, Physical Education, Recreation

The Health Physical Education, and Recreation department is an important part of the College experience. Offering a wide variety of opportunities for students, the department provides excellence in instruction.

Recommendations

- Investigate the opportunities to develop new programs with the health related and other occupational disciplines.

Physical Education Activity/Dance

- Investigate more opportunities for community members to take advantage of personal interest courses.

Physical Education Professional

- Since it is recognized as a training need in both the Muskegon area and the state of Michigan, explore offering a coaching certificate. (Appendix 7)

Recreation

- Investigate interdisciplinary options for recreation (Health fields and Education).

Life Science

The Life Science Department provides both transfer and associate degree seeking students with an opportunity for scientific study of human, plant and animal kingdoms. Many of the course offerings are required for Occupational disciplines such as Nursing and Respiratory Therapy. One of the key elements of this program is the lab component that includes real life experience at key locations.

Recommendations

- Investigate working collaboratively with our University Partners to develop more two-plus-two arrangements.
- Investigate opportunities for dual enrollment.
- Review departmental offerings to determine the addition or deletions of specific offerings.
- Enhance the use of technology in courses and laboratory sequences to improve student learning.

Biology

- Increase the number of assessment techniques, assess the results and make changes in teaching as necessary.

- Develop a plan to systematically and periodically evaluate educational programs including “nature hike” program.
- Continue to work towards the goals established by the discipline review. (Appendix 17)

Math/Physical Science

The Math Science Department offers students a gateway to many career opportunities. With its long tradition, the Math/Science department offers courses in Astronomy, Chemistry, Math, Geology, Physics, Engineering, Physical Science and Engineering.

Recommendations

- Investigate the possibilities for dual enrollment.

Astronomy

- Update the Planetarium equipment so that it can remain a service to the campus community and beyond.

Chemistry

- Investigate developing a student mentoring system for Chemistry students.

Engineering

- Investigate two-plus-two opportunities with the Engineering programs at four year institutions.
- Investigate with the Enrollment Management team and with Public Information to develop a marketing program highlighting the Engineering program.
- Work with the Institutional Research Office in developing a grant proposal to the NSF for recruitment of Transfer Students.
- Investigate internship programs with local companies.
- Focus efforts on increasing enrollments to avoid program reduction or elimination.

Geology

- Investigate interdisciplinary opportunities.

Mathematics

- Investigate working closely with area high schools for the future dual enrollment opportunities.
- The development of a self-paced computer learning lab for math students should be investigated in collaboration with faculty members from the College Success Center.
- Tutoring for non-developmental math classes should be coordinated with the Math department, where tutors can receive adequate support from instructors who

teach these courses and where instructors can be more involved in the tutoring effort.

Physics

- Continue to offer upper division Physics classes.
- Investigate the use of technology including hybrid and online offerings.

Social Science

The Social Science Department represents a wide variety of disciplines serving the College's general education requirements. Consisting of History, Anthropology, Economics, Geography, Political Science, Psychology, Sociology and Women's Studies, the department provides the basis for further study at transfer institutions.

Recommendations

- Investigate including additional Social Science classes as requirements in the General Education Program. (ex. Cultural Competencies, and Psych)

Anthropology

- Investigate 2 plus 2 opportunities with 4-year institutions including a stronger relationship with GVSU.

Geography

- Create a laboratory facility for Geography.
- Develop a GIS degree program with a transfer option in conjunction with CAD, CIS and Criminal Justice. (Appendix 18)
- Continue to work towards the goals established by the discipline review. (Appendix 19)

History

- Investigate the reorganization of U.S. History courses.

Political Science

- Investigate the possibility of a study abroad semester with other disciplines.

Psychology

- Investigate offering new associate degree/certificate programs in Social Work/Human Services. (Appendix 7)

Sociology

- Investigate offering new associate degree/certificate programs in Social Work/Human Services. (Appendix 7)

Women's Studies

- Investigate offering new associate degree/certificate programs in Social Work/Human Services. (Appendix 7)
- Investigate adding additional classes to the curriculum.

Occupational Program Descriptions and Goals

Associate in Applied Science degree programs are designed to meet education and training needs of individuals who desire to enter and/or advance in the workforce, providing skills needed by employers. AAS programs are developed in a collaborative effort with representatives of business, industry and health careers to insure that the degree requirements are aligned with labor market demand and provide both the professional and occupational skills required for workers to be successful.

The collaboration between the College and our community results in outcomes-oriented curricula designed to provide students with immediate employment, career upgrading, or the base upon which to build further education. Students benefit from the practical hands-on approach that is common among AAS coursework. Local employers benefit from the infusion of well-educated workers into the market.

As a result, AAS programs may serve as either a “school to work” preparation program or a “school for work” training ground. Students may choose to tackle a complete AAS degree program or simply take classes necessary for skill development.

Many AMP recommendations for the Occupational Program are a result of the Self-Study and Evaluation of Occupational Programs (SSEOP) process utilized under the Perkins Grant. Under the SSEOP procedure, individual occupational disciplines are evaluated by seeking input from students, faculty members, advisory committee members, and administrators on a variety of topics. Results of the evaluation are shared with the respective department chairperson and discipline faculty members. Goals for the future of the discipline are jointly arrived at by the chair, faculty members, and the Vice President for Academic Affairs. This process provides insight into program operations and is a valuable planning tool.

Recommendations

- Collaboration among departments needs to increase to provide students with more of a real world approach to problem solving and decision making.
- Insure that functioning, active advisory committees are in place for all programs to insure continued relevancy of program offerings.
- Explore unique programming opportunities and/or partnerships with other community Colleges around the state.
- Determine the potential for increased partnering with the Lakeshore Business and Industrial Service Center on non-credit training.
- Investigate the viability of establishing bridge programs linking non-credit training with for-credit certificate and degree programs.
- Increase communication with the Employment Resource Center to provide students with consistent, accurate information and guidance relating to job placement and career opportunities.

- Develop a close working relationship with the Office of Institutional Research to establish a culture of environmental scanning leading to increased awareness of emerging technologies.
- Ongoing periodic discipline reviews must continue.
- Comprehensive professional development opportunities for all faculty members must continue to be offered.
- Consistently conduct faculty evaluations so that we insure quality in the classroom and professional growth for faculty members.
- Investigate creating the position of Coordinator for General Education to consistently assess both the relevance of course offerings and the impact of general education on student learning.
- Investigate the current department structure and consider making changes to improve efficient and effective organizational operations.
- Create a process similar to the Liberal Arts/Transfer Program Review guidelines to systematically evaluate the Occupational Program and begin the process.

Business Department

Business Disciplines

Accounting/Office Management

The main focus of this program is providing students with opportunities for transfer to a four year institution. The basics of Accounting are taught as are basic office management skills and techniques. The Accounting degree program has been eliminated from the curriculum.

Recommendation

- Consider renaming the program to Office Management/Accounting and repositioning it under the Office Systems program area.

Management

The Management AAS program focuses on the development of leadership and supervision skills. Students gain the knowledge, attitudes, experience, and perspective necessary to function in a variety of supervisory positions in business and industry. The curriculum covers the broad concepts of business leadership plus specific issues relating to unique people/work problems.

Marketing

The Marketing program focuses on both Marketing and Management, making it an appropriate choice for students aspiring to leadership positions in the areas of sales management, retail management, customer service or other marketing related careers. Entry level job opportunities remain strong for people with a basic marketing education.

Recommendations

- Develop a plan for promoting the program, including increased efforts at encouraging students to choose marketing or management as a career option.
- Develop an Entrepreneurship emphasis within the program so that “Management,” “Marketing,” and “Entrepreneurship” form a three-pronged approach to business studies.
- Assess the location and timing of courses in terms of convenience for students.

Office Systems Education (OSE)

Office Systems Education is designed for students who aspire to a career as an office professional. Five different AAS degree options are offered in the OSE discipline, enabling students to acquire the skills necessary to succeed in an entry-level administrative office assistant position in the administrative, legal, medical, information processing, or international fields.

Certificate options are also available in the areas of Medical Clerk and Office Support Specialist. Professional Development credits are also available to help students upgrade their administrative office skills in the areas of voice transcription and word processing.

Many of the OSE courses are offered in the Office Systems Education computer lab. This is a self-paced, individualized classroom uniquely designed to teach certain software and applications courses not offered in a traditional classroom setting.

Recommendations

- Update the Medical Clerk certificate and introduce a Medical Office Management AAS degree. (Appendix 22)
- Provide more emphasis on skill areas such as medical billing, coding, and scheduling software programs.
- Investigate other training and degree options that provide opportunities for students to work in administrative and/or support roles in the medical field.
- Investigate the restructuring of discipline offerings to offer non-credit training leading to employment as well as articulation with certificate and degree programs.
- Consider the development of “mini” courses directed to the professional development of students.
- Increase the number of articulation agreements with K-12 schools and Career Tech Centers in our service area.

Computer Information Systems Discipline

MCC offers a number of options for students interested in careers which require extensive knowledge of microcomputer operations and personal productivity software.

Computer Applications

The Computer Applications AAS degree program enables students to become expert users of word processing, electronic spreadsheet, and database software that operate on microcomputers. They learn to work within local area networks and can develop new microcomputer-based applications.

Business Computer Programming

Students enrolled in the Business Computer Programming curriculum learn to work within a midrange computer environment, which is commonly used by businesses to manage manufacturing, supply, distribution, customer relations, resource planning, and e-commerce Internet servers. Students become proficient in at least two programming languages.

A certificate in RPG Programming is offered as an adjunct to the AAS degree program.

C/C++/Java Computer Programming

This program teaches the elements of the languages used for encryption algorithms, system utilities, and commercial computer applications. Students become proficient in at least two programming languages using procedural and object-oriented methodologies.

A C/Java programming certificate is offered as an adjunct to the AAS degree program.

Computer Network Technology

The AAS program in Networking Technology is a natural choice for students interested in careers which require extensive knowledge of local and wide area networks. Students receiving an AAS degree in Networking can create, install, and maintain local area networks and are knowledgeable about the protocols and hardware used to transfer data across wide area networks. They learn to work within different network environments and use the latest networking technologies.

A Computer Networking certificate is offered as an adjunct to the AAS program.

E-Business

The AAS degree in E-Business is designed for students entering careers which require an extensive knowledge of the Internet. Graduates of this AAS program can create Web pages, install and maintain Web servers, and are knowledgeable about the protocols and hardware used to transfer data across the Internet. They learn to work within wide area networks and can develop new Web sites using HTML coding.

A Web Design certificate is offered as an adjunct to the AAS program.

Recommendations

- Continue to emphasize hands-on work to apply skills learned and build confidence of students.
- Develop a pseudo network for students to run and trouble shoot problems as a capstone class.
- Implement programs that introduce industry standard hardware, software, and security needs, such as the International Cyber – Security Education Coalition standards relating to networking technology.
- Investigate the feasibility of offering a computer forensics program in conjunction with the Criminal Justice program.
- Investigate the option of offering a new Computer Technician program in collaboration with the Electronics Department.
- Continue to maintain currency of program offerings by remaining on the leading edge (not “bleeding edge”) of software and hardware innovations
- Refocus the organization of the CIS discipline to provide more clarity for students as to the available education options.

Criminal Justice Discipline

The AAS degree in Criminal Justice is designed to enable individuals to obtain entry level employment in certain criminal justice positions. It also provides students with the minimum requirements necessary for admission into police academy programs. Two program options, Law Enforcement and Corrections, are available, allowing students to focus their energies in one of those directions. A separate Corrections Officer Certificate option is available as an adjunct to the AAS degree. An ASA degree option is also available for students wishing to transfer to a four year program in Criminal Justice.

Recommendations

- The feasibility of a police academy should be once again investigated
- Internship opportunities need to be available in a jail setting.
- Develop an interdisciplinary program with the CIS, Geography, and CAD disciplines focused on Homeland Security issues.
- Study the feasibility of re-positioning the curriculum with a “Public Safety” and/or a “Homeland Security” emphasis and incorporating a Fire Science AAS degree into the curriculum.

Education Department

Education Discipline

The Education program offers a wide range of opportunities for students desiring to work with children in a variety of educational settings. Three different AAS degrees are offered in Early Childhood Education, one satisfying requirements for the state of Michigan's School-Age credential, another leading to the federal designation of Child Development Associate (CDA), and lastly, a program leading to a career as an Instructional Assistant in the Special Education arena.

In addition to the degree offerings, five unique certificate options are available for students wishing to pursue only the professional education portion of a program. Certificates are offered in the areas of Child Development Associate, Family Day Care, Infant-Toddler Care, Teacher Aide - Paraprofessional, and Instructional Assistant, Special Education.

Recommendations

- Incorporate the Kids Kare program into the curriculum to provide more hands-on learning in a student laboratory with children.
- Help students find fieldwork placement that works around their pre-existing schedules.
- Institute additional articulation agreements with university programs.
- Consider hiring at least a part-time Coordinator to assist in all program administration.

Industrial Manufacturing Technology Department

Automotive Technology

The Automotive Technology discipline educates and trains students to fill the mechanical, technical, and supervisory positions in the automotive industry. Students learn to inspect, diagnose, maintain, replace, and repair automotive parts and systems. The latest state-of-the-art diagnostic computers and electronic service equipment are available for student use in a modern automotive lab. Graduates of the program have experience working on many automotive systems, including among others, electrical, transmission, suspensions, and fuel components.

Both the AAS degree and a certificate option are available in the program.

Recommendations

- Explore options for augmenting the program in the area of alternative fuels, hybrid vehicles, diesel engines and other relevant areas.
- Develop short term training modules leading to industry certification in

specialized areas of automotive technology.

Computer Aided Drafting and Design (CAD)

CAD communicates ideas of design and construction details through the use of lines, symbols, and dimensions. Students prepare working plans and detail drawings of products or structures and gain extensive computer skills to complete drawings. The discipline offers students the opportunity to explore areas of mechanical, electronic, electrical, commercial, civil, and architectural drafting. Both the AAS degree and a certificate option are available.

Recommendations

- Expand recruitment efforts to build enrollment.
- Investigate the addition of more architecture and Geographic Information Systems classes into the curriculum.
- Collaborate with the Geography and Criminal Justice discipline areas on potential programming in the Homeland Security arena.
- Determine if market demand justifies continuing offering the curriculum as is vs. repositioning it as a specialized “higher-end” training component of a revamped Manufacturing and Productivity discipline.
- Incorporate more collaborative work across Manufacturing Technology disciplines by working in cohort groups with students from Machining Technology, Welding, and Materials Technology.

Electronics Technology

The Electronics Technology discipline prepares students for careers as Electrical and Electronics Technicians. Graduates are able to apply electrical and electronic theory and related subjects to help develop, manufacture, maintain, and service a wide variety of electrical and electronic equipment and components.

Biomedical Electronics Technology prepares students with the same foundation as the Electronics discipline, but with a focus on health related positions such as a Biomedical Electronics Technician.

The AAS degree is offered in both Electronics Technology and Biomedical Electronics Technology. A certificate option is also available in both areas.

Recommendations

- Continue to emphasize curriculum development to maintain relevancy of curriculum offerings by:
 - investing more in building small integrated systems;
 - placing greater emphasis on troubleshooting via the development of a collaborative effort with CIS in Computer Technician studies; and
 - determining the feasibility of adjusting course offerings to include emerging technologies such as Radio Frequency Identification.

- Develop an increased awareness among potential students of the biomedical discipline.

Graphic Design

The Graphic Design discipline prepares students for entry into the field of graphic design with a broad set of experiences in the creation of a wide variety of media for advertising, displays, sign and computer graphics to fit clients' needs.

The AAS degree is available in addition to five different certificate programs. Students can choose to specialize in Display Advertising, Printing Prepress, Multimedia, Web Design, or Audio/Video Production.

Recommendations

- The need to emphasize a designer's point of view instead of a printer's perspective should be investigated.
- Emphasize and assist students in placement services.
- Ensure the program continues to cover technology and techniques that employers use including the MAC vs. PC computers.
- Offer more classes which focus more on art and design, including studio lighting and digital photography.

Industrial Technology

The Industrial Technology discipline provides a generalist approach to manufacturing technologies. Students gain broad skills and knowledge that will assist them in obtaining employment in supervisory or technical positions in industry. Classes offered represent a cross-section of courses in other specialty areas of the department.

The AAS degree and a certificate option are available.

Recommendations

- Incorporate the World Class Manufacturing into the AAS degree as a concentration in Quality Assurance.
- Develop additional concentrations by adding emphases in Alternative Energy, Industrial Maintenance, and other relevant areas of study.
- Determine the viability of a Gaming Design collaborative program. If viable, work with the disciplines of Art, Graphic Design, English, Education, Music and CIS on a truly integrated and innovative approach to curriculum development.

Machining Technology

Machining Technology is a highly diversified area involved with the production of machined objects required for the assembly of the vast range of products of modern industry. Graduates of the program understand the process of quality production and are able to evaluate machined parts against blueprint

specifications, work within precise limits of accuracy, and problem solve for production obstacles.

The AAS degree and a certificate option are available.

Recommendations

- Incorporate more collaborative work across discipline lines by working in cohort groups with students from CAD, Welding, and Materials Technology.
- Maintain, and ultimately expand, the focus of the curriculum on high-tech skills in demand by local industry. (Appendix 20)
- Determine the impact if national Manufacturing Skills Standards are incorporated more completely into the curriculum.
- Determine the fit of Machining within a potentially revamped Manufacturing and Productivity approach.

Materials Technology

Materials Technology is the study of new and modified materials emerging on the technology scene. Students gain skills in the understanding, testing, development, and applications of industrial materials such as metals, alloys, ceramics, semi-conductors, polymers, and composites.

The AAS degree and a certificate option are available.

Recommendations

- Integrate Materials Technology with other disciplines to provide students with a greater knowledge and skill base.
- Maintain a solid relationship with the local chapter of the American Foundry Society (AFS) whose members serve as the advisory committee for the curriculum.
- Work together with the AFS to determine if market demand justifies continuing offering the curriculum as is vs. repositioning it as a specialized higher-end training component of a revamped Manufacturing Productivity discipline.
- Incorporate more collaborative work across discipline lines by working in cohort groups with students from CAD, Welding, and Machining Technology.
- Determine the fit of Materials within a potentially revamped Manufacturing and Productivity approach.

Pulp and Paper Science

This discipline is designed to upgrade the knowledge and skill levels of current and potential workers in the paper industry. It was developed in conjunction with Western Michigan University's Pulp and Paper program specifically at the request of Sappi Fine Paper Co.

With the demise of employment and career opportunities in the paper industry in west Michigan, it is recommended that both the AAS degree and certificate

options be discontinued.

Welding Technology

A career in welding requires skills dealing with the fabrication of metal products from rolled, stamped, forged, or cast shapes. Students in the Welding Technology discipline gain skills in analyzing metals, positioning weldments, and using structural shapes in a lab setting comparable to the industrial setting.

The AAS degree and a certificate option are available.

Recommendations

- Incorporate more collaborative work across discipline lines by working in cohort groups with students from CAD, Machining Technology, and Materials Technology.
- Determine the fit of Welding within a potentially revamped Manufacturing and Productivity approach.

World Class Manufacturing/Business

World class manufacturing (WCM) is a concept of doing business that requires knowledge of quality manufacturing technology and practices.

Due to minimal enrollment in the AAS degree curriculum, it should be discontinued. In its stead, a Quality Assurance concentration should be developed as an option in the Industrial Technology AAS degree. Since a Quality Assurance certificate option already exists, the Certificate in WCM should also be discontinued.

Additional Industrial Technology Certificates

Specific Certificate options are designed to prepare students for immediate employment. All of the following offerings provide students with relevant skills applicable to specific aspects of industry. Certificate holders are well prepared for entry level employment in their respective fields. These certificates include:

- Digital Electronics Technology
- Industrial Electrical Maintenance
- Applied Alternative and Renewable Energy
- Industrial Maintenance
- Microprocessor Electronics Technology
- Industrial Supervision
- Quality Assurance

Based on research into future market needs, all these certificate programs should be maintained.

The development of non-credit certificates should be explored as an adjunct to the academic disciplines. These certificates would be offered as either professional

development for people working in certain industries or as personal enrichment for interested parties.

Health Careers Related Programming

Changing community demographics along with information obtained from labor and employment studies demonstrate the need to investigate additional education and training opportunities in the health care arena. The data consistently show continued high market demand for workers in Human and Social Service fields, medical related positions, and direct delivery of medical care. Many positions will be available that require only an Associate degree as an entry level credential.

An important part of our inquiry involved uncovering opportunities where a lack of training exists in our service area and where career opportunities are real. Additionally we are well aware of the tremendous financial investment necessary to operate a quality program in certain areas of health training.

Recommendations

- A Medical Office Manager Associate degree should be established. The degree can be inexpensively developed utilizing present courses in the Office Systems Education, Management, and Allied Health curricula. Local medical personnel have advised us of the need for this option and only two or three new courses need to be put in place. (Appendix 22)
- Associate degree options should be investigated in the areas of Gerontology services and Home Health Aid Services. These are two fields where demand for trained workers is expected to remain high through 2012 and beyond.
- The Phlebotomy program should be converted from a Community Services offering to an Academic Certificate. Supplementing the basic Phlebotomy training with related Allied Health classes will enable students to be even more marketable in their careers. Lacking this conversion to a credit based offering, an articulation arrangement must be established to allow students to apply non-credit training to credit-based certificate or degree offerings.
- We need further investigation into the feasibility of offering a certificate option in Polysomnography and reinstating the Massage Therapy discipline. Data collected from regional health care providers presents an initial case for these two offerings. (Appendix 21)
- An increased number of short term certificates should be established in specialized areas of health care such as Medical Billing and Medical Insurance Coding. The Medical Clerk certificate needs to be revamped to offer more office assistant training. (Appendix 22)
- We need further investigation into developing consortium relationships to allow MCC students to attend, through distance learning models, health-career programs offered by other community Colleges.

Nursing

The Nursing discipline offers a career-ladder nursing curriculum with three educational tracks. Students who choose to exit after completion of the first four terms of the curriculum receive a Practical Nurse Diploma and are eligible to write the National Council Licensure examination for Practical Nurses (NCLEX-PN) to practice as a Licensed Practical Nurse (LPN). Students who exit after completion of the first six terms of the curriculum will receive an Associate in Applied Science degree. Students who exit after completion of all seven terms of the curriculum receive an Associate in Science and Arts degree (ASA). Students who receive either the AAS or ASA degree are eligible to write the NCLEX-RN examination for licensure to practice as a Registered Nurse.

The Nursing discipline fills an important role on campus and in the community. Nurses are in great demand in the community and in surrounding regions. The waiting list for students who have an expressed interest in the Nursing curriculum approaches five years in duration, although practically speaking, students normally spend no more than three years waiting for entry.

Recommendations

- The Nursing program needs to be positioned as THE Quality Program in west Michigan. We must complete and continue to maintain all requirements for National League for Nursing (NLN) accreditation.
- The financial barrier to expanding the Nursing program is formidable. Without an innovative approach to partnering with industry providers, the number of students annually admitted to the program should remain at 100 for now. Opportunities for grant funding, partnerships, and program endowments should be investigated over the next two years.
- Facilities for the Nursing program must also be improved. The upcoming remodeling of the campus will be the key in enhancing both student and faculty learning areas.
- The regular review of courses' content—especially those taught by several instructors—to insure appropriateness and completeness must be continued.
- Continue to monitor students' opinions, attitudes, and expectations with the goal of continuous improvement. Increase the number of graduate and employer surveys returned for program evaluation.
- Continue the use of the program advisory committee as a sounding board for program enhancement.
- Continue to support strategies for retaining minority students.
- Mentor and retain talented adjunct faculty members.
- Study potential solutions to the long list of students waiting to enter the program.

Respiratory Therapy

The Respiratory Care discipline is a 28 month associate degree program which began January, 1980. It is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). The curriculum design offers students a choice of two degree options. They may choose either the Associate in Applied Science Degree (AAS) or Associate in Science and Arts Degree (ASA).

The curriculum for the program includes courses in the natural, behavioral, and social sciences, as well as respiratory care. Didactic and clinical instruction is integrated in a planned process that allows for concurrent presentation of respiratory care theory with associated clinical practice.

Additionally, in response to the need for health professionals in Northern Michigan, the respiratory care program is providing distance education through a collaborative effort with Munson Medical Center and Northwestern Michigan College in Traverse City. Each member is responsible for providing a piece of the distance learning component; Muskegon Community College is the degree granting institution and provides the professional courses for the program – Munson Medical Center provides the hands-on clinical education required by the students and Northwestern Michigan College provides the non professional degree requirements.

The respiratory care program fills a vital role in the dynamics of the College and in the education of respiratory therapists for the Western and Northern Michigan regions of the state. Respiratory Therapists are in great demand locally, regionally and nationally. Students expressing a desire to enter the discipline generally are placed on a waiting list for one year.

Recommendations:

- Improve the ongoing surveying of students, graduates and employers to derive their opinions, attitudes, and expectations in relation to meeting program goals and as determined by accreditation requirements.
- Regular review of the technology requirements for the program must include laboratory, educational delivery systems and distance learning needs.
- Continue the regular review of program content to insure relevance and completeness.
- Continue the use of the program advisory committee as required and determined by CAAHEP.
- Continue in our role as a regional resource for respiratory care education and health care delivery.
- Maintain accreditation by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).
- Determine the feasibility for expanding the physical space allocated to the program.
- Determine the feasibility of expanding the distance learning component in

Northern Michigan including the Upper Peninsula.

- Determine the feasibility of adding educational tracks that would provide health professionals with certifications beyond primary education levels.

Learning Skills Program

Learning skills programming at MCC is primarily housed in the College Success Center (CSC). The CSC offers credit courses in writing, reading/study skills, and math, as well as offering tutoring services in many programs of study. CSC offerings range from basic skills to more sophisticated College-level activities such as skim reading or the writing of research papers. Additional developmental courses are found in both the Math and English departments.

CSC offerings play a critical role in preparing students who come to MCC with less-than-adequate academic skills. Often, it is the time spent in the CSC that gives those students the wherewithal to successfully move through a College curriculum and gain needed credentials for success in the workplace.

Mission Statement for the College Success Center

The vital role served by the CSC is stated succinctly in its mission statement.

The College Success Center exists to help under-prepared College students and those seeking enrichment acquire the skills necessary to be successful in their endeavors at MCC and, subsequently, in the community.

Recommendations

As a result of both program assessment and a series of planning meetings held with CSC staff, the following recommendations for the program are in place:

- **Discipline reviews** - Continue to work towards the goals established by the discipline reviews conducted for the CSC Reading and Math 040/050 classes. (Appendix 23)
- **Outreach** – expand the outreach efforts of the Center to communities where the need for developmental coursework and access to MCC’s main campus have been identified as barriers to a successful College experience.
 - Explore the implementation of outreach activities at Lindbergh School in Muskegon Heights. The easiest to implement would be Math because no extra materials or supplies are needed. All the students would need is their textbook. We hope to have this in place by fall 2007.
 - Writing would be the next easiest to implement. There are a few supplies needed, but nothing that should prohibit us from getting this going in the fall 2007.
 - Reading would be the most difficult because many extra supplies are needed such as computers, RFU kit, Jamestown Books, Skills Bank

Program, and ACE Reader Program. Overcoming the barriers to teaching Reading must be accomplished in order to begin teaching this subject by the winter 2008.

- Explore the use of high school students to volunteer their time to help out in communities where they live.
- **Class scheduling**– Starting Fall 2007, math courses should be scheduled in two 7 ½ week sessions instead of a 15-week semester.

We have done an intensive study and found that students do better in the shorter sessions (spring and summer). Experiment with this plan for fall semester, and continue it if we find that it is beneficial to the students. Also, because the students will have a choice on two dates to start, the ongoing registration during the semester which is now in place should be eliminated.

- **Special Populations Services** – The Special Populations Program is an academic program with an ever-increasing number of CSC students receiving services from the program.

The relationship between the CSC and the Special Services Program Office must be maintained to insure that services offered to Special Populations students who require the CSC’s assistance are effectively coordinated.

- **Curriculum Issues** – With major changes occurring in our service area population, the Center’s offerings must be investigated to determine if other areas of opportunity exist.
 - The expansion of our ESL services should be explored. This would require an ESL room where ESL students can meet for conversation, help, information, and have access to supplemental materials.
 - The addition of the “Key Train” program should also be investigated. This program would allow for increased training opportunities in collaboration with the Lakeshore Business and Industrial Service Center.
 - Requiring CSS 100 should be explored at least for students on probation and students struggling midway through a semester.
 - The continued viability of individualized instruction needs to be addressed. Many CSC students will not survive in a traditional classroom setting until both their skills and self-confidence are increased through the attention individualized work affords them.

- The development of a self-paced computer learning lab for developmental math students should be investigated in collaboration with faculty members from the Math discipline
- **Assessment** – Assessment must remain a high priority for the CSC offerings.

Successful completion of CSC classes is only the first step toward a rewarding College experience. A comprehensive research model needs to be developed for all disciplines in the CSC, including tutoring. Special emphasis should be placed on tracking students' success in classes taken after CSC classes to insure the continued relevancy of the work done in the Center.

- **Facilities** – Requests for physical remodeling of the Center must be accomplished to provide an improved learning space for students.
- **Tutoring** - Although many students utilize this service, it has not reached its maximum potential. This is partially due to lack of awareness of services and also the lack of tutors in certain areas. Therefore, the tutoring area must:
 - Increase accountability by tracking students using the tutoring services and their success in class compared with other students.
 - Develop a marketing strategy that includes at a minimum:
 - a. Staffing an informational table in the student union at various times during the semester.
 - b. Meeting with the various clubs/student organizations on campus.
 - c. Distributing information at faculty seminar days.
 - d. Working closely with faculty members from specific disciplines (e.g., Math) to insure adequate support for tutors and active faculty involvement.
 - Recruit more peer tutors in needed areas by:
 - a. Visiting classrooms at the end of current semesters to recruit new tutors for the following semester.
 - b. Involving faculty more fully in recruitment of tutors.
 - c. Visiting high schools in the spring to inform future MCC students about the possibility of becoming tutors.
 - d. Attending a meeting of Phi Theta Kappa to recruit tutors.
 - Have as a priority that all tutoring requests are filled one week after request is made.
 - Improve quality of tutors by developing a .5 credit course for tutors to be trained.

Community Outreach and Enrichment Programs

We recognize the responsibility we have as the community's college in regard to the advancement of cultural and life-enhancing activities within our community. Many programs are offered that augment the academic offerings of the College and serve as a linkage to the community, drawing thousands of people to campus each year.

There are, however, concerns with the extent and/or the effectiveness of our outreach efforts. Some regions of our service area remain underserved and opportunities need to be investigated that would enable us to reach more citizens with academic, non-credit, and enrichment programming. This is especially true when we consider the nature of competition faced in certain areas and the minimal opportunities offered for certain segments of the market.

The recommendations which follow represent diverse goals aimed at increasing community involvement, enhancing cultural enrichment, expanding community outreach efforts, and building on opportunities for students to truly engage themselves with the College.

MCC's Presence in the Outlying Community, including Downtown Muskegon

The importance of providing services to the community in the community will continue to grow in future years. The College can do much in offering enhanced time and place utility for our constituents with a well thought out plan for expanding our reach away from the main campus.

The needs of many divergent audiences were considered in discussions relating to this topic. Geographic areas considered include downtown Muskegon, the remainder of Muskegon County, northern Ottawa County, Newaygo County and southern Oceana County. The planning team was unanimous in its opinion that we need to expand efforts into the communities we serve.

Downtown Muskegon and northern Ottawa County are the areas of primary importance. A real opportunity exists for us to capitalize on the impending rebirth of downtown Muskegon. Being a part of this hoped-for renaissance will further position the College as a valued community partner for all citizens. At the same time, the growth in northern Ottawa County cannot be ignored. Almost twenty percent of our students presently come from this area and our goal should be to increase that to 25 or 30 percent over the next five years. Whatever artificial barriers exist due to the bridge between Muskegon and Grand Haven can be overcome with a physical presence in that community.

As the new graduation requirements for Michigan high school students are enacted in 2007, more and more requests from local school districts for College programming for their students can be expected. Dual enrollment, online experiences, and perhaps early-College offerings will be in demand as local school districts remain financially strapped and perhaps unable to comply with all state requirements on their own.

Recommendations

- We must continue to pursue partnership opportunities with the Muskegon Museum of Art and Hackley Library to obtain capital outlay money from the state of Michigan to establish an Arts Center for the city of Muskegon. Our Art program should either be relocated downtown or, lacking the funding, at the very least the campus facilities must be improved considerably.
- A presence downtown is important even if the Art project does not come to fruition. Other opportunities should not be pursued however until the outcome of this effort is known.
- We must aggressively pursue a location south of the bridge in Grand Haven. At a minimum, we should seek to acquire space allowing for two classrooms, meeting space, and office space. Grant funding and/or community partnerships should be sought to help offset start-up funding requirements.
- The pilot project at Lindbergh School in Muskegon Heights should be evaluated at the end of the 2006-2007 school year. Plans for the future enhancement of the program should flow from the first year results with the continued viability of the effort to be determined in 2008.
- Conversations need to continue with representatives from the Newaygo County Regional Educational Services Agency (RESA). Dual enrollment appears to have a real chance of succeeding with students from the Newaygo County schools and the prime spot to hold these courses could be at the RESA facility.
- Additionally, we must continue to seek an alternative location to hold extension classes in the Newaygo County area. We have a long track record in holding classes at the Gerber Company in Fremont, but we are hearing more and more concerns over the continued viability of that location. Yet, the opportunities available in serving residents of both Fremont and Newaygo make it worth our effort to determine the viability of finding a new location for our extension classes.
- Oceana County does not hold as much promise as these other areas due only to its relatively small population. However, lessons learned from the Lindbergh School effort could be put to use in either Hart or Shelby to better serve the communities there. ESL and developmental courses could be especially attractive to the population in these areas. Much more investigation would be required before committing to an actual location in the County.
- We need to be prepared for additional requests from K-12 school districts for College programs in their communities. The options of expanded dual enrollment and early- and/or middle-College programming must be explored so that we are confident of not only the demand for these choices but also the viability of offering them.

Changing Demographics and Population Trends

Conclusions are easily drawn that say the College must be positioned to serve the varied future needs of a changing community. Numerous program enhancements need to be explored if we are to remain relevant for key segments of our community. As discussed in the Introduction to the AMP, a substantial amount of data collected by the data sub-committee represented inquiry into the changing landscape of our community. It would be short-sighted to ignore the implications of these findings as the characteristics of the market are changing.

Recommendations

- English as a Second Language is an area of study that should be investigated for incorporation into the Learning Skills program.
- With unemployment in traditional industries remaining high, more short term training opportunities need to be developed to assist people in gaining the basic skills needed to compete in today's new economy. The Lakeshore Business and Industrial Service Center needs to play a key role in this product development endeavor.
- Community outreach efforts need to be increased to bring MCC to the people. The pilot program at Lindbergh School in Muskegon Heights should be evaluated as the model for future expansion of basic skills outreach efforts.
- The Continuing Education department already offers personal enrichment courses, but a larger number of enrichment programs aimed at older adults should be developed. Examples of programming to be investigated include the reinvigorating of the Elderhostel program and other specialized lifelong learning activities modeled after successful Emeritus College programs. Collaborating with MCC's Continuing Education and Student Life departments should be investigated in this regard.

Cultural and Other Learning Opportunities

The College offers its students a variety of learning opportunities outside of the classroom. These activities support what our faculty teach plus provide students the opportunity to interact with faculty and staff in different settings.

The Creative and Performing Arts Department offers students opportunities to showcase their artistic talents while simultaneously drawing community members to campus. The Overbrook Art Gallery is the most visible and active component of the Art Program consistently scheduling exhibits featuring students' work as well as local, state, regional, and even national artists.

The Dance, Music, and Theater disciplines provide students opportunities in on-stage performance as well as behind the scenes technical support roles. Performances are scheduled throughout the year with thousands of people attending.

The Humanities discipline is more classroom oriented although the annual Muskegon Arts and Humanities Festival serves to bring the Humanities to the community with a variety of events every October.

Muskegon Community College is one of eight institutions in the nation to be recognized for its efforts to promote international learning. Activities and events with an international focus serve to educate the community about the world around us. The annual Global Awareness Festival is a week long event designed to further the knowledge of diversity for the community, faculty, and students. The week-long festival includes international films, workshops, an international fair, speakers, and cultural food and entertainment. The study abroad program has had a number of students, faculty, and staff participate since the 2001/02 academic year. Featured countries include Germany, Ireland, and Thailand.

A variety of international related courses are offered including Comparative Governments, International Relations, Introduction to the United Nations, World History, World Religions, Arab League Politics, and North Atlantic Treaty Organization. Political modeling is an important part of the student experience by providing them a forum to reinforce and practice their international skills and to prepare them to be leaders of tomorrow.

The Foreign Language discipline augments these offerings with a variety of experiences designed to enhance student learning with a closer look at world cultures.

Learning experiences exist to help students and community members understand more of the natural world in which we live. The Kasey Hartz Natural Area and nature trail provide information about the benefits of the ecosystems and how we can use the Earth's resources in ways that leave the environment healthy for future generations. The Carr-Fles Planetarium together with the Observatory complement the College's astronomy program and serve as additional resources for area recreational stargazers. Thousands of community members visit the Planetarium and Observatory each year.

Many literary related experiences are available as well. *The Bay Window* is an award winning student-run campus newspaper. *River Voices* is a literary and art magazine that has been published by the College's English/Communication department twice a year for the last fifteen years. For the last nine years, the Muskegon Writers' Center has hosted literary events that bring award-winning authors to campus to read their work. They often conduct writing workshops in classes the day before or after an event. Lastly, students and faculty members have traveled to Stratford, Ontario, Canada during the annual Shakespeare Festival for the past nine years. This gives students an opportunity to attend some of the best live theatre in the world.

The Health, Physical Education and Recreation department also offers numerous extra-curricular activities designed to train the body as well as educate the mind. The Intramurals Programs serve the recreational, competitive, and educational needs of the students, faculty, and staff and enhance the sense of community for all members. The College also offers special health related and physical education classes at offsite locations to enhance the student experience. For student-athletes wishing to continue their athletic careers after high school, the College offers a full complement of intercollegiate sports opportunities.

Student Club activities provide the community with an outlet for creative expression and exploration. Each organization specifically meets the interests of the members whether it is educational, sport, Christian fellowship, field trips or just camaraderie between fellow students. Certain student clubs are affiliated with specific academic disciplines, providing out-of-class experiences for students which supplement their studies.

Other specific learning opportunities exist to add to the College experience for MCC students. The Honors Program offers challenging class options and adds an extra dimension to the education of academically motivated students. MCC-TV 98 offers both student learning and community outreach opportunities, including the broadcasting of local events, studio tours, and opportunities for local schools to show their programming. Lake FX radio, MCC's online radio station, offers both student learning and outreach opportunities, not only in our community, but internationally as well.

The Occupational Program area offers students diverse opportunities to apply their classroom learning to the real world. Nursing students serve the community by screening Headstart students, assisting in flu clinics and community disaster drills, and offering blood pressure screening and senior home visits. The Drafting Technology discipline conducts an annual drafting competition drawing high school students and teachers to campus for a full day of learning. The Materials Technology discipline, in conjunction with the American Foundry Society, holds an annual Education Day for high school teachers and students. Business students have the opportunity to travel to New York for an up close view of what life on Madison Avenue is all about. Education students work in many day care centers and preschools around the community getting valuable experience in working with young children. In addition, all disciplines in the Occupational Program area offer students the chance to participate in an internship experience.

Recommendations

- Explore the establishment of an Ethics Institute on campus. This entity would be a voice for ethical interests and serve as an excellent supplement to academic offerings for students and the community alike.
- Work with the Student Services, Community Services, and Lakeshore Business Center departments to develop a comprehensive plan aimed at not only maintaining, but improving community and student enrichment activities.

- Dream a little.....strive to develop a culture aimed at helping students achieve their dreams. Inspire students to achieve for the sake of knowledge and lifelong learning.
- Continue to offer the myriad of cultural, extra-curricular, and other programs that serve to make MCC a “real College.” The benefits accruing to students who take advantage of opportunities to travel, exercise their bodies or minds, or discover new ways to learn contribute to the overall quality of our students’ experiences at MCC.
- Build on the Honors program to not only improve the experience for students, but also to provide honors options within additional disciplines.

The Lakeshore Business and Industrial Service Center (LBISC)

The LBISC provides a variety of services that includes academic and customized training for business and industry, and academic extension classes in the outlying communities of Oceana, Newaygo, Ottawa and Muskegon Counties. Customized training focuses specifically on satisfying the individual internal needs of each business client. Customized instruction offerings include customer service, leadership, international trade and business, and varied consulting services. Technical training is also available in the manufacturing skills areas such as machining, welding, quality control, electronics, PLC, Hydraulics, Pneumatics, and other specialized skills training.

The academic extension courses provide easy access for students who find it difficult to travel and desire a quality education without leaving their community. Site locations include the Whitehall Continuing Education building, Muskegon YMCA, Grand Haven High School, Fremont High School, Gerber Products Company, and Fremont RESA (Regional Education Service Area). The LBISC is also a WorkKeys® Service Center and MSSC (Manufacturer Skills Standard Council) testing site providing certification for the nationally recognized Career Readiness Certificate and the MSSC high skill, high tech production manufacturing certification. The Center is also the coordinator for the West Michigan Regional Fire Training consortium and Commercial Driver’s License truck driver center for Class A licensure training.

Recommendations

- Provide training in the area of advanced and technologically sophisticated skills for the workplace of the 21st century.
- Become a single point resource for consulting services and cutting edge skills training for business and industry.
- Develop closer partnerships with business and industry through the Business and Industrial Manufacturing Technical Departments’ advisory committees.
- Investigate options and make recommendations for alternative sites in Grand Haven, Fremont, and Whitehall for extension course offerings.
- Develop a three year rolling schedule for academic extension courses in the surrounding counties that will provide a structured progression for degree and certificate program completion.

- In collaboration with the CTL, develop and provide alternative delivery systems for academic and customized training opportunities.
- Continue developing effective relationships with the Workforce Development Board, Orchard View Community Education Center, Muskegon Area First, Chamber of Commerce and other groups associated with developing and strengthening the business and industrial infrastructure for the four County areas.
- Utilizing computer based testing, expand WorkKeys® testing for the Career Readiness Certificate for business, industry, secondary education institutions and interested individuals within the communities.
- Partner with Grand Rapids Community College and the Milwaukee Technical College in launching the MSSC certification for west Michigan.
- Continue the development efforts for new programs, courses and training that are linked to community needs and employment skill gaps.

Institutional Excellence

Any institution of higher education which strives to make a real difference in the lives of the students and other stakeholders it serves must take steps to insure its offerings are relevant to its audiences. Relevance, however, must go hand-in-hand with quality if valuable outcomes are to be attained. A series of related programming concerns exist that must be examined as part of a holistic approach to student learning.

Assessment

MCC's assessment program has been in place for the last decade. Over this time, the program has evolved into a fairly stable system, making some real differences in programs across campus. We are fortunate to have a veteran faculty member serving as Assessment Coordinator. Many of the advancements made in assessment practices are a direct result of his leadership and commitment to the program. He is a well respected colleague to other faculty members and his imprint is clear on today's assessment efforts.

That is not to say it has been easy to establish a culture of assessment on campus. The development of a comprehensive assessment program has taken effort to gain increasing, and sometimes begrudging, support across campus. The effort has encountered obstacles in data collection and analysis due to the limitations of the College's Legacy information system and the lack of a professional research office on campus. However, a dedicated assessment committee is in place, meets regularly, and provides support and guidance to the program.

Today, five levels of learning assessment exist at MCC. Efforts are targeted at the program level, general education initiatives, course level, classroom level, and the discipline level.

Recommendations

We must continue to build on the systematic assessment process to continue gathering data that is relevant for reviewing both student and program outcomes.

- Work with the Office of Institutional Research to develop an evaluation plan for the data we do have. Continue to work with Educational Testing Services (ETS) to insure the validity of the reincarnated *Academic Profile* for future use. If the *Profile* appears to be successfully revamped by ETS, continue to administer it every February
- Working with the Director of Registration and Records, develop a system that more accurately tracks student transcript requests.
- Working with the Director of Institutional Research, develop a system to accurately track both the ultimate destination of transfer students and their success rate in obtaining admission to their desired university program.
- Work with the Director of Institutional Research to determine program areas needing improvement in the area of student success. Develop a three year plan for improving the level of performance in these programs. Utilize the model presented for program improvement in occupational programs as a guide.

- Work with the office of Institutional Research to develop a plan to track student success at other Colleges. Inherent in this strategy is the need to further develop relationships at universities so that transfer student data may be received from them on a voluntary basis. We need to realize that this may not be a feasible strategy due to universities' consistent refusal to provide data on a regular basis.
- Work with the office of Institutional Research to develop a system to accurately determine students' goals at time of enrollment, track students' performance throughout their time at MCC, and report on student performance vs. their goals.
- Continue to be the catalyst for completion of discipline reviews, program evaluations, and evaluation of learning in the classroom.

The Impact of Technology

Determining the impact of technology on learning is critical if we are to effectively implement new technologies into the process. We can presume the impact is real and not to be denied, but we must continue to do more to ascertain the realities of technology in the classroom. We certainly need to be cognizant of the expectations of our students as well. Staying abreast of changing and emerging technologies is a challenge for any institution, especially for one looked upon as a leader in educational innovation.

We are fortunate to have strong support from our partnership with Sungard Corporation. Their presence on campus has helped us all become more aware of emerging issues and enabled the campus to be more responsive to student needs and expectations. The introduction of the Datatel Colleague administrative system will also be an advantage for us in the future.

For now though, our concern is more with the ability of the College to consistently deliver as the technology expert in the County. Our faculty needs to remain up to date with current developments in teaching methodologies and the mechanisms must be in place to make sure that we remain leaders in the field.

The growth of distance education (DE) offerings since 1999 has been a dramatic one. From simple beginnings, the DE program has expanded to include over 70 class sections each semester with over 1,000 enrollments. The initial online effort has expanded to a combination of online, hybrid, and blended sections offering students a variety of learning experiences. Change in this arena has come fast and furious; building on the successes will take focus and commitment.

Recommendations

- The position of Coordinator of Instructional Technology (CIT) should be established within the Academic structure of the College. Working as a liaison with the Office of Information Technology (OIT) and the Center for Teaching and Learning (CTL), the Coordinator would be responsible for all quality initiatives relating to alternative delivery of classes. A full time faculty member would receive release time to serve in this coordination role

and would be responsible for establishing consistent practices for course development, online evaluation, faculty training, course delivery, and determining student outcomes.

- The CIT must collaborate with OIT as the Information Technology strategic plan is developed and future direction is set for technology efforts on campus.
- Development of goals for the implementation of new DE course offerings and for future direction of the program should be part of the CIT's initial undertakings.

Center for Teaching and Learning (CTL)

The CTL is in its first full year of operation after having existed as a “virtual center” for the past few years. The vision for the CTL is that of a place for faculty to work together with the shared goal of improving teaching and learning on campus. The CTL is a place where faculty can:

1. Find assistance with incorporating new technology into their teaching
2. Gain new skills directly applicable to their work in the classroom
3. Collaborate with colleagues on innovative approaches to teaching
4. Gain access to many resources related to improving learning
5. Develop courses in a supportive environment receiving assistance as needed

Recommendations

We must build on the momentum generated with the opening of the CTL by striving to make the center THE place faculty members turn to for professional development and assistance related to their teaching and students' learning.

The Impact of the CTC on MCC's Campus

The Muskegon Area Career and Technical Center (CTC) is situated on the northwest corner of MCC's campus covering twenty acres of woodland bordering on and visible from US 31. The CTC opened in the fall of 2004 representing a true partnership between the Muskegon Area Intermediate School District and MCC. Twenty-two different occupational training programs are offered at the center, serving over 800 high school juniors and seniors. The programs offered at the CTC prepare students for either employment after high school or further study at College.

All of the CTC programs, with the exception of just a few, provide for articulation of credits directly to MCC. Articulation programs such as these give high school students a head start on their College careers as students are granted credit for their work at the Center upon enrollment at MCC. The CTC is not only a benefit to the community and its workers of the future but also could hold promise for MCC programming.

An agreement is already in place whereby the College could hold classes at the Center when high school classes are not in session. The AMP process provided the right mechanism for further investigation into this option. The consensus is that the extra

facility space could provide a means for program expansion without the potential for exorbitant costs.

Recommendations

- Increase the number of students articulating credit for the CTC to MCC. The present number of students taking advantage of this opportunity is unacceptably low. Whether this is a result of misinformation, poor marketing, counselor disinterest, or some other reason depends on who you ask. The reasons for this apparent disconnect must be investigated and corrected.
- The CTC's potential as an extension center needs to be aggressively explored. The ability to expand and/or develop programs at the Center could be an asset to the College. The proposed additions of various health related career programs could be aided by utilizing these facilities.
- Additionally, market data suggest that electrical technicians are in great demand but short supply. A program in heating, ventilation, and air conditioning (HVAC) should be explored for introduction at the Center. Other program areas should be jointly explored and discussed with CTC officials with an eye toward boosting College enrollments through the articulation process.
- The opportunity to utilize the CTC as the bridge between non-credit training and for-credit certificate and degree programs must be investigated.

The Meijer Library

The Hendrik Meijer Library/Information Technology Center opened on January 9, 2006. With the move, the name changed from the Allen G. Umbreit Library to the Hendrik Meijer Library. This new facility has features designed for students, faculty, staff, and community visitors. Generous views of the nature area, creek and surrounding area are found throughout the facility. Quiet reading areas, group study rooms, information literacy assistance, wireless Internet access and many hi-tech computers for high speed access to our remote databases are offered. The Library currently has 60,000 print books, access to over 16,000 online books, and millions of full text magazine and journal articles, with the number of resources growing daily. It is obvious that the Meijer Library is a quality addition to our campus.

Information Literacy

The Library staff, composed of three full-time and two part-time professional librarians, offers a variety of Information Literacy classes. Classes have been taught for English, College Success Seminar, Business, Psychology, and other classes on library and remote database usage. These orientations usually take place in the library, but the librarians also visit classrooms and labs.

Reference

The Reference Librarians have collected reference interview data for the past fourteen years. Recent survey data show that 96% of the patrons (students, faculty, staff, community members and guests) were satisfied with the reference assistance that they received.

Databases

Over the past three years, MCC's library has increased its subscriptions to electronic databases. Students now have access to 80 different databases with over 9,000 full text magazines, journals, and newspapers and over 16,000 full-text books online.

Statistics

The library has numerous sources of statistical data. Areas include database and Website use, reference desk questions, gate count and room use, orientations, circulation statistics, and acquisitions and collection management. Sample data is included in Appendix 24.

Recommendations

- Develop a program which consistently reinforces the importance of information literacy
- Serve as the campus champion of information literacy offering training and education to satisfy faculty, staff, student, and community needs
- Investigate appointing librarians as liaisons to specific academic departments
- Evaluate the impact of the Library Information Center and other technological changes on teaching and learning (assess students' information literacy).

Implications

The Academic Master Plan presents ideas for the future direction of the College's academic offerings. As such, the plan serves as our foundation document for the years 2007 – 2011. Since both the Academic Affairs function and this plan impact virtually every aspect of the College, it is important to realize that the successful implementation of the ideas presented herein depends upon the collaboration of many different departments on campus. Highlighted below are suggestions relating to the realization of AMP goals.

Marketing

The AMP calls for the potential realignment and adjustment of curriculum offerings as well as the introduction of new courses of study. Communication of these changes will be critically important as we reposition specific aspects of our programming.

Recommendations

- Consider establishing a marketing advisory group to address needs and strategies
- Develop an internal marketing plan to insure all staff members are aware of changes
- Develop an external marketing plan employing specific product advertising approaches
- Academic Affairs must collaborate with Public Information and Enrollment Services to provide input to the enrollment management plan thereby insuring the development of a comprehensive communication and recruitment plan
- Utilize MCC TV98 as a tool for showcasing MCC people and learning opportunities
- Work to cultivate a culture on campus that truly emphasizes the point that all employees are marketing ambassadors for the College
- Enhance recruitment activities by conducting frequent tours of instructional facilities for prospective students

Financial Resources

We are operating in an environment where state funding for higher education has been declining. Recent attempts at the state level to provide additional funding have provided minimal increases at best, with funding still falling far short of previous years' levels. There is also no guarantee that "givebacks" to the state may be avoided, resulting in additional budget cutting. This has resulted in more of a burden being placed on students in the form of increased tuition and tech fees and has limited us in our ability to institute innovative additions to the curriculum.

Recommendations

- Institutional advancement efforts must continue to grow as a priority
- Appropriate grant funding opportunities must be strategically pursued to maximize prospects for growth

- Consider a new definition as to how funding is shared between credit and non-credit programs to instill a sense of entrepreneurial resource development at department levels

Human Resources

Planning for enrollment growth, facilities improvements, technology enhancements, and market development activities will require us to strategically anticipate future staffing and leadership needs. Creative solutions must be explored to maximize our human resource capabilities.

Recommendations

- Seek out current staff and faculty members who should be mentored and developed for leadership roles
- Develop a succession plan for key leadership positions
- Develop a prioritized plan for anticipating needs for faculty and for finding appropriate replacements
- Continue to hire the best prepared, most qualified instructors to fill both full-time and adjunct faculty positions.
- Consistently conduct faculty evaluations so that we insure quality in the classroom and professional growth for faculty members.

Technology

Staying current with the ever-changing world of technology presents a challenge to us all. However, it is a challenge that we must embrace if we are to live up to stakeholder expectations.

Recommendations

- An alliance must be formed among OIT, the CTL, and the Coordinator for Instructional Technology that results in innovative strategies for delivery of classes, professional development, and the enhancement of learning technologies.

Facilities

Many of the recommendations contained in the AMP have the potential to reshape the campus. Communications between Academic Affairs and other areas of campus, especially Student Services and Administrative Services, must be open and consistent to insure the efficient, effective use and design of campus facilities.

Recommendations

- Continue to cultivate the feeling that we are all caretakers of the facilities in which we work.
- Explore the physical and structural changes recommended in this plan and implement as economically feasible

Ramifications

This plan holds much promise for the future of the campus. It is important to note, however, that extensive review and further planning must occur related to many of the recommendations found here. It is entirely possible (most likely probable) that some of the recommendations will not come to fruition for a variety of reasons. That would not be viewed as a failure. Changing market conditions may force us to reconsider the wisdom of making some of the changes proposed. Economic realities must be considered when determining certain courses of action. Political events may play a role in the attainment of some goals. Program priorities may dictate that one recommendation is implemented at the expense of another one (or more).

A major point to emphasize is that these uncontrollable variables could, and very likely will, impact our abilities to achieve every goal outlined in the plan. We all must be prepared to face this situation and do what is best to assure the overall progress of the plan.