



4. Trends / Observations

A. Curriculum Development

In the course of analysis, our team met with the following stakeholders. The commentary for curriculum development is derived from these meetings and subsequent communications.

- Athletics / HPER (Health PE Recreation)
- Business / College Success
- Creative Arts
- English
- Industrial Manufacturing Technology
- Information Technology
- Nursing, Respiratory Therapy, Life Sciences
- Physical Sciences & Mathematics
- Social Science & Education
- Student Services

4. Trends / Observations (continued)



Athletics / HPER (Health PE Recreation)

MCC Athletics supports competitive teams in the following sports affiliated with NJCAA - Region XII - MCCA - Western Conference:

	<u>Sport</u>	<u>Venue</u>
Men:	Baseball	on-site
	Basketball	on-site
	Golf	off-site
	Wrestling	on-site
Women:	Basketball	on-site
	Softball	on-site
	Tennis	on-site
	Volleyball	on-site

MCC will field a Men's Cross Country Team and a Women's Cross Country Team beginning in the Fall of 2010. Meets will be held off-site, planned at Orchard View High School.

MCC plans to field a Men's Bowling Team and a Women's Bowling Team in the Winter of 2011. Meets will be held off-site, planned at Northway Bowling Lanes in Muskegon.

MCC plans to field a Men's Soccer Team in the Fall of 2011. A Women's Soccer Team will be fielded in the Fall of 2012. Meets will be held off-site, planned at Orchard View High School.

Home golf meets are held Stonegate Country Club in Muskegon. In addition, health, physical education, and recreation classes are offered at MCC and at area venues, such as Cannonsburg Ski Area, the Muskegon YMCA, Pere Marquette Park, and MCC's own University Park Golf Course (9-hole course).

4. Trends / Observations

(continued)



Each student is required to take two PE classes to receive an Associates Degree from MCC. In addition, there are about 125-130 student athletes at MCC currently. As a result, the Gymnasium building is heavily utilized and in constant demand. Locker facilities for PE and competitive teams are limited. The existing fitness facility is not available to students on a walk-in basis.

More globally, the recreation and leisure industry continues to grow as part of a rising interest in personal health and wellness. This is creating a demand for professional education and training in this area. There is potential in the future for MCC to develop formal programming in recreation and leisure that transfers to a four-year degree at another institution.

In order to meet the need for current and future athletic teams, to address the demand for more academic coursework in recreation, health and fitness, to accommodate intramural athletics, and to accommodate the fitness needs of the MCC students and members of the community, the existing building should be expanded to provide the following:

- . Additional floor area
- . Additional locker facilities
- . Additional classrooms (4-6)
- . Wrestling room
- . Computer lab
- . Training Room
- . Offices for coaches
- . Laundry facility
- . Climbing wall
- . Expanded archery range
- . Equipment storage
- . Fitness center (for 40 persons), with jogging track
- . Aerobics room
- . Study lounge

4. Trends / Observations (continued)



Regarding the University Park Golf Course, there is a desire to strengthen the use of the course with MCC events and for greater access by the community. To do this, the following facilities are needed:

- . Pro Shop
- . Barrier-free toilet facilities
- . Locker rooms
- . Kitchen
- . Classroom
- . Office

Business / College Success

About 20% of business courses are delivered entirely on-line in the business curriculum. Many more are a hybrid of online and hard copy materials. Campus-wide, 36% of all students take some on-line courses. More is anticipated in terms of hi-speed wireless streaming video, but the limiting factor is technology, i.e., bandwidth.

Future classrooms should be more like meeting rooms, with access to technology and set up for team work. More classrooms are needed that seat 40-60 persons.



Creative Arts (including visual and performing arts)

The Creative Arts curricula are not currently part of a degree program at MCC. There are five existing studio spaces which are housed in a pre-engineered metal building separate from the main campus building and north of the maintenance building. The art programs have been located here for some time. This physical separation from the main campus building has caused a sense of exclusion by faculty and students from the rest of MCC. In addition, existing heating, cooling, plumbing, and dust collection systems do not work well, and the upstairs portion of the building

4. Trends / Observations (continued)

is unusable for instruction because it is not barrier-free. Storage is limited, and there is no means of securing individual rooms when they are not in use. The building lacks effective use of natural light, exhibit space for student work, and multi-media technology in each studio.



There is a desire to add more sections of visual arts, particularly in 3-D sculpture and ceramics, as well as photography and welding. The Art Department desires a new location physically connected with the main campus for greater convenience of the students and for better display of student and faculty work. The direction of the arts program is toward interdisciplinary collaboration and increased access to the College and to each other.

Some mention has been made to locate the art department as a spearhead for an enhanced presence in downtown Muskegon. In fact, several years ago, an attempt was made to locate a new center near the Muskegon Art Museum. MCC Arts represent a compatible function with the Muskegon visual and performing arts communities already in place and are seen as a potent driver of economic development in the wider Muskegon community. A downtown location also offers greater visibility for student work in the community. The success of a downtown center, however, would depend upon good, reliable public transportation between the main campus and the downtown center.



The existing Overbrook Theater, within the Frauenthal Center for fine Arts, has 344 seats and is the home of the MCC theater program. It is also a principal venue for the music department, which is looking to grow in the years ahead under new departmental leadership. The future vision for the music program includes a wind ensemble, a concert ensemble, an expanded vocal curriculum, a jazz lab and a commercial music curriculum, as well as the development of musical theater productions. The piano lab would be upgraded to a theory and composition room.

4. Trends / Observations (continued)

Theater improvements

The existing theater and music facility, however, is dated and the performance stage (approx. 38 ft. wide x 30 ft. deep) is limited in size for musical presentations. Lighting, sound, seating, and patron amenities, including accessibility, need to be addressed, and “back-of-house” functions, such as scene shop, dressing rooms, rehearsal space, prop storage, scene storage, costume storage, and space for actors off-stage are all lacking in size. The mechanical system is noisy and the electrical systems need to be modernized. Access to current technology is limited, and sound attenuation is lacking. The recently-removed semi-trailer just outside the scene shop was used for storage – its presence over the past five years has been a reminder of the lack of storage space contained within the existing facility.

English

Commentary from the English department included issues pertaining to MCC at large. There is a need for another IT commons at the opposite end of the campus from the library. Room #144 was cited as a model classroom and lab environment.

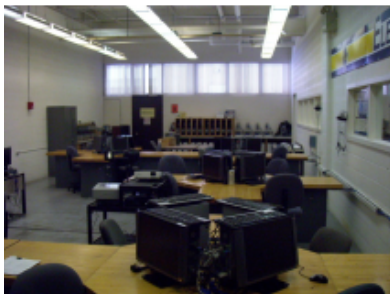
MCC needs to provide greater recreation opportunities for students. Continuing security issues need to be addressed.

Green technologies

MCC should improve its use and efficiency of green technologies, including a strong recycling program, and alternative energy resources, such as solar, wind and biofuels.

Industrial Manufacturing Technology

The Industrial Manufacturing Technology program is industrial manufacturing-based and is located in the Technology Wing of the College. It includes automotive, welding, materials science (part of the foundry), machining, electronics / electricity, and the foundry. The foundry is a regional training site for the American Foundry Society.



4. **Trends / Observations** (continued)



The CAD curriculum requires classes in welding and machining as part of the “required related” curriculum. MCC has new furnaces for the foundry, so they can work with steel and iron. MCC has gone from sand casting to chemical set castings, and the curriculum utilizes the latest software to produce collaborative, integrated projects.

Most of the students in industrial manufacturing technology return to local industry after graduation. The average age of students is about 30 years.

Interactive Media (gaming) curriculum is gaining popularity. The department is also developing an alternative sustainable energy program, including a 2K solar array, and a swift wind turbine. MCC is working closely with MAREC (Michigan Alternative & Renewable Energy Center). MCC also has a license to create biofuel / ethanol and would like to develop a program around biofuel technology.

The automotive program is holding steady and will continue to be in demand in response to developing auto technologies in electric vehicles and new generations of hybrid and diesel-powered autos.

The welding program includes 16 stations and is consistently full. This program is expected to remain steady. Robotic welding will probably not be part of the curriculum, as it is highly vendor specific. The materials science program is also expected to hold steady, with curriculum in cast metal and metallurgy.

The machining program teaches manual tools and digital machines. The program is growing and there are plans to expand into adjacent space to create a larger lab.

4. **Trends / Observations** (continued)

The electronics program involves electricity / electronics, hydraulics and pneumatics, computer repair, and biomedical instrumentation. The instructional area in the electronics program is in need of updating.

Information Technology

Sungard was hired by MCC in 2005 to provide full-involvement IT services at MCC, including web site support, student services, network services, telephone services, instructional services, and security for data. The security strategic plan is revised every three years, with annual updates and annual tactical planning.

Core components of the IT system at MCC are considered stable, with a high availability of computers for student use. The backbone is solid, with overall low volume across the system. Currently there are about 700 computers on campus available for student use, in 40 different locations, ranging from 2-4 computers in a room to 70 computers in a computer lab. Additional, there are 400-500 computers for faculty and staff use, bringing the total to 1100-1200 computers on campus. Sustained higher enrollments will create a demand for more computer access, including hours of availability.

MCC currently operates on a 3-year budget cycle, which funds the replacement of approximately 150 computers each year.

Emergency generator

MCC operates on a battery-backup system. There is a need to move to an emergency generator to support the data center in case of power failure. MCC should also consider a remote data center location, separate from the main campus, for protection and security of data.

4. Trends / Observations *(continued)*

The current IT utilization is manageable. However, future additions to the building would likely require additional power switches, extended cabling and additional network drops to serve remote locations. For example, the current network connectivity does not reach Overbrook Theater and the PE building could use an additional 1-2 switches to enhance current network connectivity.

Improvements for the future include:

- . "Smart room" capability in every classroom (currently there is "smart room" capability in 55 rooms)
- . Student portal for communications on the MCC Web site
- . Online books
- . Increased wireless access.
- . Connection to remote campus locations
- . Expansion of digital limits for students

Nursing, Respiratory Therapy, Life Sciences

The Life Sciences Department includes the core courses for the health professions programs, including botany, biology, and anatomy. There are about 500 students enrolled in the Life Sciences each semester. About 300 students go also to the nursing and respiratory therapy programs.

Life Sciences has a student / teacher ratio of 1:20. Labs are set up for a two-day period and are shared among faculty members. At the end of the two-day period, a lab coordinator changes the lab setup. Science labs should be set up with computer stations at all lab stations.

4. Trends / Observations *(continued)*

In the nursing program, MCC is starting an accelerated list for those students who already have completed all the required science courses. The nursing program has about 15 groups of 10 students each semester.

The respiratory therapy area currently has a shared lecture / lab space. The program was recently reaccredited for the maximum term, but the facilities were cited as meeting only minimal requirements.

With the emphasis and growth of health professions programs in Michigan, there are opportunities for new programs, or to bring back previously-offered programs if funding is available.

For lectures, class sizes are capped at 60. The current limitation for the department is the number of faculty and spaces required. All spaces must be handicap accessible.

Physical Sciences & Mathematics

The physical sciences include chemistry, astronomy, geology, physical science, engineering and physics.

It appears that MCC is attracting more traditional transfer students as the cost of higher education rises at 4-year institutions. There is a growing need for more technology and software resources for instruction.

Existing chemistry labs require updating, and utility services to the labs is inadequate.

Faculty commented on the lack of office space for full-time and adjunct faculty.

4. Trends / Observations (continued)

Planetarium improvements

The Carr-Fles Planetarium continues to serve the astronomy program and to offer free shows to the public. Four shows per year are provided in the domed theater. The facility, however, is largely original and has not been updated in many years. For this amenity to continue will require complete replacement and refurbishing of the existing facility.

Social Science, Foreign Language & Education

Faculty expressed a need for an early childhood lab in the education department. There was also a need expressed for a language lab, with Skype connectivity and better internet connection to visit international sites in real-time.

There is a desire among some faculty to locate education faculty offices adjacent to the social science faculty offices, or to locate all liberal arts offices in one location.

The new Board of Trustees Room was cited as a good example of a “Classroom of the Future” in terms of color, lighting, transparency, and technology. There is a need for several rooms like this on campus to accommodate 40 to 60 students. Every teaching space should be equipped with “smart cart” capability.

Student Services

MCC enrollment is about 5,100 students. The current stated goal is to consistently be above 6,000 students, perhaps as high as 7,000 – 8,000 students on a continuing basis. In the future, staff predicted that there will be an increasing number of older, under-educated students, and MCC will be the “school of necessity” for 18-year old students. The increased enrollment is creating the need for additional student services staff to handle the additional load. Technology improvements have allowed Student Services to do “more with less”. However, higher enrollments create a need for additional counselors, more recruiters, and space for a student success person for retention.



4. Trends / Observations

(continued)

Converging factors

Staff commented that there are three or four converging factors affecting student services for the future:

- . Many different kinds of students with many different needs
- . We may have already outgrown the capacity of the Student One-Stop
- . Providing financing to students in a timely fashion is more difficult with reduced state and federal grant support
- . Individual students require more attention than ever before.

Also, Federal aid for student grants may go into a “freeze mode”. Support for students may have to come more and more from institutional funds or private sources.

MCC is moving in the direction of document imaging for student record storage, but has not yet purchased the equipment needed to implement it fully. Equipment and staff to run it could be located remotely.

Engaging facilities

Students are looking for engaging facilities – places to play and recreate. The PE building is fully scheduled, reducing opportunities for students to use the gym for recreational purposes. Staff indicated that many students have requested an expanded fitness center and time to use the gym.

Food service options

Students need more food service options. A food court, with franchise food options was mentioned as an option. Students are typically lined up at the Cyber Café to use the microwave ovens to heat lunches.

4. Trends / Observations (continued)

About 12-14 percent of MCC students come from the north Ottawa County area. Some stated that MCC should stake a claim to that area as Lake Michigan College, Grand Rapids Community College, and Grand Valley State University have done, perhaps by developing a relationship with the Tech Center in Grand Haven. To a lesser extent, a significant percentage of MCC students come from Newaygo County.

Housing

Regarding student housing, staff suggested that there may be several directions MCC could take: off-campus rental houses, off-campus apartment complexes, or on-campus housing. Currently, there seems to be a sense that, if MCC decided to develop student housing, it would start with renting some nearby off-campus apartments to see how it develops over time. Recruitment of international students would be impacted by the availability of student housing.

Downtown center

Regarding the possibility of a downtown campus location, there seemed to be consensus that an arts program, including visual and performing arts, could make sense there. This could be in strategic alliance with the Frauenthal Theater and other arts establishments. This would be aided by stronger, convenient transportation ties to downtown.

Universal design should be applied wherever possible to make more space and facilities accessible to the disabled.

Wayfinding

Wayfinding remains a consistent problem. Some suggested that it may be time to renumber every room. Several comments were made that new and prospective students often come to sign up, but do not know where to go – there needs to be electronic message boards and/or an information booth at the main south entrance with a real person to respond to questions, at least during the weeks leading up to the beginning of each semester and the first weeks of the new semester.

There is a need for a designated security office.

4. Trends / Observations *(continued)*

B. Enrollment

Muskegon Community College is currently enjoying high enrollment levels. Several factors appear to be contributing to this: 1) additional academic and athletic programming is creating increased interest in the College; 2) a poor national and state economy, with high unemployment and the need for workers to be retrained in a new field, enter the workforce for the first time, or seek advanced education to retain employment; and 3) the rising cost of higher education at 4-year institutions, which is having the impact of motivating a higher proportion of traditional high school graduates to seek lower tuition costs and housing costs by taking core coursework at MCC and transferring to another institution for advanced education after two years.

However, the ability to maintain high enrollment levels will be tempered by the declining enrollments in K-12 districts through Muskegon Community College's service area and Michigan in general, as well as another result of a poor economy – outmigration.

Sustained enrollment levels

The ability of MCC to attract students will rest on factors such as cost, quality, service, technology, student amenities, community relevance, consistent marketing and messaging, and effective recruitment. Also, the steady, incrementally small tuition increases over the years appear to have kept MCC extremely competitive relative to other community colleges in Michigan.

4. Trends / Observations

(continued)

Population Projections

Developing physical facility plans for the future requires a look at the potential future enrollment at Muskegon Community College and overall population projections of the area.

The Regional Economic and Demographic Projections were developed by the West Michigan Shoreline Regional Development Commission and released in August, 2009, with the following overall population growth findings:

County	2000	2030	% Change
Lake	11,333	13,651	20.5%
Mason	28,274	31,258	10.6%
Muskegon	170,200	193,657	13.8%
Newaygo	47,874	59,421	24.1%
Oceana	26,873	34,827	29.6%
N. Ottawa	<u>49,996</u>	<u>67,222</u>	34.5%
Total	334,550	400,036	19.6%

A breakdown by the U.S. Census Bureau (2000 census data) for Michigan by age group predicts the following:

Age	2010	2020	2030
0-4 yrs	6.5%	6.4%	6.2%
5-17 yrs.	17.3%	16.8%	16.6%
18-24 yrs.	9.7%	8.5%	8.4%
25-44 yrs.	26.9%	26.7%	25.4%
45-64 yrs.	26.7%	25.6%	24.0%
65+ yrs.	<u>12.9%</u>	<u>16.0%</u>	<u>19.4%</u>
Total	100 %	100 %	100 %

4. Trends / Observations

(continued)

	2010	2020	2030
Median Age	37.4	38.6	40.2
Male	36.0	37.3	39.0
Female	38.8	39.9	41.4

This data tends to supports the continuation of the profile of the average MCC student as one in the 20-39 age group, looking to acquire additional job-training skills, pursue additional degrees or professional certification / licensure, and attending part-time.

This data also points out the gradual decline of the traditional high school graduate population. Increasing the market share of this population will require greater presence in the marketplace to attract these students.

Program growth potential

It also points out the tremendous growth of the aging “boomer” generation. The needs and desires of this age group represents an opportunity and potential incentive for MCC to develop and/or enhance post-graduate curriculum, community service curriculum, leisure-related curriculum, and fitness / wellness programs. In addition, the relative under-education of the general population in Muskegon and Michigan, compared to national statistics, provides an opportunity for growth:

Total Percentage of People (Age 25-34) with Bachelor Degree or Higher:

Muskegon County:	16.9 %
West Michigan:	25.9 %
State of Michigan:	27.3%
United States:	29.2%

4. Trends / Observations *(continued)*

C. Space Utilization

A fundamental goal of this master plan is to identify the need for remodeling or expansion of existing physical assets.

To assess the need for additional classroom and associated space, we reviewed class schedules for one-week time periods in three consecutive semesters. These were suggested as “typical” for each semester for analysis purposes:

- . March 19-23, 2009
- . October 19-23, 2009
- . March 22-26, 2010

For each teaching space, we documented class hours scheduled for each space over the course of a typical week. In the campus plans which follow, composite classroom utilizations are identified. The utilization category for each is an average of the three weeks noted above. Each space was placed in one of the following categories:

- 0-9 hours of schedule class time per week
- 10-19 hours of schedule class time per week
- 20-29 hours of schedule class time per week
- 30-39 hours of schedule class time per week
- 40+ hours of schedule class time per week

The number of scheduled hours for the selected weeks in March and October, 2009 were almost identical, with a slight increase of 10 hours in October over March. However, the March, 2010 hours were about 11% higher than the typical weeks in 2009, indicating higher enrollments and additional course offerings.

4. Trends / Observations (continued)

As a percentage of the weekly total, following are the daily averages:

	<u>% of Weekly Total</u>
Mondays	23.5%
Tuesdays	23.3%
Wednesdays	22.5%
Thursdays	21.4%
Fridays	<u>9.3%</u>
Total	100.0%

Daytime utilization versus nighttime utilization of spaces varied depending upon curriculum. In the Art Building, three of five studios were scheduled only for day courses. One was scheduled only in the evening. In the Bartels-Rode Gym Building, the Exercise / Wrestling room is scheduled only after 3 p.m., Monday through Thursday. In the main building, many spaces are scheduled in the day and night hours, but some are scheduled Monday through Wednesday only. However, some spaces are scheduled only during daytime hours and are unused at night.

Impact of technology

Access to technology appears to influence which spaces are utilized more. Rooms with “smart carts” were scheduled, on the average, 28% more often than spaces without “smart cart” capability.

Overall, there appear to be sufficient instructional spaces on campus to meet the needs of current and anticipated enrollment and course offerings. However, the location and configuration of teaching spaces, access to technology, and the condition of each space for 21st-century higher education creates the need to address infrastructure and bricks and mortar issues. Further, access to teaching spaces based on expanded hours of operation, the addition of teaching faculty, and flexible course schedules will decrease the pressure experienced by some faculty for specific courses, though this presents operational cost implications.