Category 1: Helping Students Learn

Context

1C1 Common student learning objectives

Mid-State Technical College (MSTC) educates students for specific careers, and in the process of doing so leads students to achieve two sets of common learning objectives: Core abilities (CAs), and general education outcomes (GEOs). Both sets of learning objectives are overarching skills woven into the technical and general studies courses students encounter during each student's progress toward a degree.

MSTC has nine core abilities (Table 3). Core abilities are designed to identify for students what things employers expect, and which we expect students will acquire from attending college. In the curriculum development process, instructors identify the core

Table 3 Core abilities

Core Ability	Indicator
Act with integrity	learner demonstrates work ethics and behavior learner identifies established rules, regulations and policies learner assumes responsibility for own action learner effectively resolves conflict
Apply technology to specific occupational tasks	learner uses math symbols and concepts appropriately learner demonstrates technological literacy learner selects procedures, equipment, tools and resources appropriately and accurately
Assure quality	learner implements procedures for improvement of work processes learner is dedicated to doing a job well learner determines personal effectiveness within the organization
Communicate clearly and effectively	learner writes and speaks so others can understand learner asks questions learner interprets the use of nonverbal communication learner uses proper telephone etiquette learner uses active listening skills
Demonstrate effective critical and creative thinking	learner applies a problem-solving approach to a problem learner evaluates and chooses best alternative learner demonstrates open-mindedness
Demonstrate global awareness and responsiveness	learner recognizes cultural differences in order to promote understanding for a cooperative work and social environment learner demonstrates awareness of current world events learner describes political, economic and social systems different from one's own learner demonstrates geographical literacy learner recognizes difference in world measurements
Learn effectively	learner takes responsibility for own learning learner uses tools for learning, such as calculator, computer, books, manuals and resources learner organizes information learner applies appropriate reading strategies to suit the purpose for reading
Manage self responsibly	learner attends meetings/classes regularly and on time learner organizes workload learner completes assigned tasks on time learner adheres to occupational safety and health rules/procedures learner manages stress in appropriate ways
Work cooperatively	learner participates as a member of a team (e.g., following instruction, providing feedback, cooperating with established team goals) learner works to satisfy internal and external customer's expectations learner appropriately responds to praise and criticism; accepts advice learner displays a positive attitude

Table 4 General Education outcomes

General Education Outcome	Indicator
Communicate effectively through writing and speaking	Write sentences, paragraphs, letters, and reports that are clear, concise, courteous, coherent, and correct. Write paragraphs using different rhetorical strategies. Complete writing process for each assignment: Demonstrate effective use of planning, researching, and editing. Design formats to match a specific audience and a specific rhetorical approach. Students will demonstrate competence by making presentations, individually and in groups. Students will choose language appropriate to situations.
Use mathematical symbols and apply mathematical concepts and methods	Simplify rational, irrational, and complex expressions. Evaluate formulas and functions using a scientific calculator. Convert customary and metric units of measure. Solve linear, quadratic, trigonometric, and logarithmic equations. Rearrange formulas. Solve systems of equations and formulas. Solve right and oblique triangles. Construct and interpret graphs of two-dimensional linear, quadratic, and trigonometric equations.
Apply economic decision-making concepts	Read graphs and tables of economic information. Define economic terms. Explain rationale for economic discussions. Identify factors that affect economic decision-making.
Think critically about one's self and others	Students assess the impact of socialization agents. Assess consequences of multiculturalism on social order. Student analyzes self-concept by completing a self-assessment. Student compares self-concept with image others have of learner, citing a minimum of similarities or discrepancies.
Demonstrate social awareness	Student suggests a number of ways to minimize the impact of cultural differences in communication situations. Student suggests a number of ways to accommodate gender differences in communication situations. Learner identifies group influences on personal behavior. Learner summarizes social consequences of prejudice and discrimination. Learner examines functions of cultural relativism. Learner summarizes influences of socialization on life.
Apply scientific concepts and methods	Define scientific terms. Interpret scientific data from graphs and tables. Develop problem-solving skills. Learner uses mathematical equations to solve problems. Apply scientific principles and laws. Convert customary and metric units of measure.

abilities directly applicable to a course, and list the core abilities in the course syllabus. Each core ability has associated indicators, which give the instructor measurement criteria that can be applied to learning activities in the course.

Each course taught at MSTC is reviewed periodically (the review cycle varies by division). There is a curriculum checklist that defines minimum requirements for course designs; the college's goal is to ensure that core abilities are present in all MSTC courses. The college uses a curriculum design model called the Worldwide Instructional Design System (WIDS); the design model has a software tool that makes adding and linking core abilities to course competencies and learning activities simple.

General education outcomes (GEOs) are included in Table 4. Each GEO has indicators that instructors can use as measurement criteria for learning activities in a course. Although it may appear that there is some overlap in CAs and GEOs (for instance there is a CA, *communicate clearly and effectively*, and a GEO, *communicate effectively through writing and speaking*), the indicators differ. The same WIDS curriculum design software that allows instructors to link CAs to course competencies also permits linking GEOs to competencies. By linking CAs and GEOs to competencies, it makes it easier for students to understand how CAs and GEOs are met.

1C2 Aligning student expectations and college goals

Mid-State Technical College has college goals, which flow directly out of the institution's strategic directions. Strategic directions are over-arching, high-level outcomes that the board of directors determines biannually; the strategic directions are based on the college's mission and vision and set the future direction for the college. College goals are developed for each fiscal year. The college goals for FY 2006 are listed in Table 5, along with how the college goals align with institutional and student expectations.

Because the college goals are developed to operationally espouse the mission and vision, student expectations, as described in Table 3, flow out of the college mission and vision.

Table 5 2005-2006 College goals

College Goal	Alignment
Advance an organizational climate that promotes equal opportunity, embraces diversity, and fosters a mutually supportive environment.	Student alignment Core abilities: Act with integrity, demonstrate global awareness and responsiveness, work cooperatively General education outcomes: Think critically about one's self and others, demonstrate social awareness
	Institutional alignment Strategic direction: Proactively create a climate which promotes inclusion, enhances diversity, challenges discrimination, and embraces the needs of changing populations. Core values: Student centeredness, respect
Stimulate economic development through market-driven programs and the expansion of partnerships with business and industry, legislators, and other educational providers.	Student alignment Core abilities: Apply technology to specific occupational tasks, work cooperatively
	Institutional alignment Strategic direction: Provide leadership and support to stimulate economic development through the provision of highly skilled technicians in emerging and existing industries, build substantive partnerships with legislators and communities to broaden awareness of MSTC's value and benefit to businesses and individuals in central Wisconsin.
Develop and implement strategies to increase student success and promote a dynamic, student-centered learning environment that supports students in achieving their educational goals.	Student alignment Core abilities: Manage self responsibility, learn effectively General education outcomes: Think critically about one's self and others
	Institutional alignment Strategic direction: Remain learner centered. Continue to assess and improve processes to enhance individual and varied student educational needs; Foster relationships with educational providers to link resources and needs in a responsive and economical manner; Partner with diverse groups in business, industry, schools and government to build strong communities and enhance the quality of life in our region.
Foster a climate of continuous improvement as a means to improve the delivery of services to students, stakeholders, and communities.	Student alignment Core abilities: Assure quality, demonstrate effective critical and creative thinking
	Institutional alignment Core values: Student centeredness, commitment, accountability, integrity, exceptional service
Expand opportunities that increase access to college programs and services in an affordable manner for individuals and businesses.	Student alignment General education outcomes: Apply economic decision-making concepts, use mathematical symbols and apply mathematical concepts and methods
	Institutional alignment Strategic direction: Build substantive partnerships with legislators and communities to broaden awareness of MSTC's value and benefit to businesses and individuals in central Wisconsin; remain learner centered; continue to assess and improve processes to enhance individual and varied student educational needs; foster relationships with educational providers to link resources and needs in a responsive and economical manner; partner with diverse groups in business, industry, schools and government to build strong communities and enhance the quality of life in our region. Core values: Student centeredness, commitment, accountability, respect, integrity, exceptional service
Refine strategies to ensure the sound allocation and spending of college funds during an era of funding uncertainty at state and federal levels.	Student alignment General education outcomes: Apply economic decision-making concepts, use mathematical symbols and apply mathematical concepts and methods
	Institutional alignment Strategic direction: Build substantive partnerships with legislators and communities to broaden awareness of MSTC's value and benefit to businesses and individuals in central Wisconsin. Core values: Commitment, accountability, respect, integrity, exceptional service
Further develop leaders at all levels of the organization to position the college for continued success.	Student alignment Core abilities: Communicate clearly and effectively General education outcomes: Communicate effectively through writing and speaking
	Institutional alignment Strategic direction: Proactively create a climate which promotes inclusion, enhances diversity, challenges discrimination, and embraces the needs of changing populations; foster relationships with educational providers to link resources and needs in a responsive and economical manner. Core values: Student centeredness, commitment, accountability, respect, integrity, exceptional service

1C3 Instructional offerings and technology

Mid-State Technical College offers certificates, technical diplomas, and associate degrees. There are a total of 22 two-year associate degree programs, 10 less-than-one-year technical diploma programs, 10 one-year technical diploma programs, and three two-year technical diploma programs. The 45 programs currently offered at MSTC are listed in Table 1.

The college is divided into seven academic divisions, reporting to four academic deans. The four deans represent Business & Agriculture (BA), General Education (GE), Technical & Industrial (TI), and Service & Health (SH). Table 6 lists full-time equivalent (FTE) students by division, along with the dean to which the division reports.

The Academic Support Center (ASC) provides remediation, academic support such as subject-specific tutoring, ESL (English as a Second Language) services, and basic skills training. In terms of total FY2005 FTEs, the ASC was larger than the Technical & Industrial division.

Mid-State Technical College uses six different instructional delivery modes; in FY2005 91% of full-time student enrollments were in courses in traditional classroom settings, which reflects the college's decision to focus on face-to-face instructional delivery. Not every mode is used in every division. The Industrial division has the least variety in instructional delivery mode (using classroom delivery and internships), while the Business division delivers courses using all six of the modes. Delivery modes by division are summarized in Table 7.

At its four locations, the college has 157 rooms dedicated primarily to teaching; rooms are most often configured to serve 24 students. There are 66 classrooms, 21 computer labs, 5 instructional television classrooms, 40 labs, and 25 meeting rooms. Of these rooms, 85 are fully wired with a minimum of an instructor computer and a ceiling-mounted data projector; the other rooms can be served by cart-mounted audiovisual equipment as needed. Data projectors are replaced on a three-year cycle. Many labs have common equipment deployed in technical fields or simulators designed to train students for the real world. For instance, the automotive technician and diesel and heavy equipment technician programs use computerized test equipment to diagnose mechanical faults, and the nursing program uses patient simulators.

The college has adopted a standard "smart classroom," which has array of instructional technologies. The latest-generation smart classroom includes an instructor desk, a computer with dual LCD monitors, a digitizing tablet for pen-based input, a DVD player, a VHS player, speakers, a ceiling-mounted LCD projector, and a network-enabled switch to allow support staff to remotely access the station. Staff at the college developed the upgraded smart classroom (called "SmartRoom II") based on input from instructors.

Table 7 Instructional delivery modes by division

Division	Class room	ITV	Online	Intern-ship	CBT	Ind Study
Business/ Ag	X	X	X	X	X	X
Gen Ed	X	X	X			X
Health	X	X	X	X		
Industrial	X			X		
Service	X	X	X			
Technical	X			X		X

When it comes to providing training for using technology in the classroom, the college provides small-group, low-threshold training opportunities throughout the year. In addition, the college has a full-time staff member dedicated to providing one-on-one technology assistance and support for classroom technologies. Specialized or program-specific technology training is provided by the division using the technology.

1C4 Preparing students for a diverse world

Mid-State Technical College prepares students for

Table 6 Full-time equivalent (FTE) students by division and year

Dean	Division	Full-time Equivalent Students (1 FTE=30 credits) 2005	2004	2003	2002	2001
BA	Business	609.29	593.79	611.52	595.47	606.64
BA	Agriculture	57.40	63.83	50.60	50.77	21.91
GE	General Education	555.37	587.23	577.04	491.81	441.33
SH	Service & Health	536.32	570.12	505.04	456.75	399.15
TI	Technical	72.79	86.55	99.82	98.95	109.19
TI	Industrial	93.69	90.14	90.61	80.07	92.20
TI	Apprenticeship	25.11	29.88	45.28	53.90	54.08
GE	Academic Support Center	201.43	197.83	184.50	208.23	203.28
	Total	2,151.34	2,219.37	2,164.41	2,035.95	1,927.78

living and working in a diverse world in several ways. First, student expectations are clear because diversity is addressed in both the core abilities (Table 3) and general education outcomes (Table 4). Instructors link specific course competencies to the core abilities and general education outcomes as necessary.

Second, several divisions rely heavily on personality type and learning style inventories for incoming students. The business division uses multiple inventories; the Information Technology program uses True Colors™, which is based on Keirsey's temperament model. The division uses the inventory to spotlight the differences between individuals, to help students work better together. The nursing program has all incoming ADN and PN students complete a self assessment. The self-assessment covers things like learning styles, critical thinking, time management, problem solving, and coping skills. The program tracks three of the areas (time management, problem solving, and coping skills); every student below the 50th percentile gets written tools to help improve their skills in the sub par area. The aim is to improve retention.

Third, the college has an active international education program. Each spring, the college sponsors a "Global Classroom," where students can travel to other countries. The college also has a sister-state relationship with the German state of Hessen. Each year, the college exchanges students and instructors with Max-Eyth-Schule in Kassel. In 2005, students from MSTC's information technology program visited Germany, along with an instructor from the automotive technician program. In October 2005, German automotive students visited MSTC.

Fourth, many MSTC programs require students to work in internships. Students meet a variety of people with varying backgrounds while in the internship; preparation from classes integrating the core abilities and general education outcomes help students work in a diverse world.

Fifth, MSTC has an active non-traditional occupation (NTO) program. The purpose of the NTO program is to secure enrollments in programs that aren't gender-balanced. For instance, most students in nursing or civil engineering programs are of one gender; each program's NTO initiative attempts to bring in students of the underrepresented gender into the program.

Sixth and finally, MSTC's student activities group routinely brings in diversity speakers, to build awareness among and within the student and staff population. MSTC's district is very homogeneous; well over 93% of district's population is White. Activities and speakers serve to raise awareness among students and staff.

1C5 Creating a climate of intellectual freedom

Mid-State Technical College creates a climate that celebrates intellectual freedom both for students and staff. The approaches to both sets of stakeholders are described below.

Many of the college's programs are taught at more than one campus. However, students are often mobile, taking classes at multiple campuses as scheduling and life issues warrant. Thus it is critical to ensure that classes taught at more than one campus cover the same topics, in the same depth and measure student competency in the same way. The college has standard course competencies for all classes, including higher level exit learning outcomes such as linked core abilities and general education outcomes. From an intellectual freedom standpoint, anything below the global course materials and outcomes are the purview of the individual instructor. This gives individual instructors wide latitude in the teaching methods that work best for the instructor and the students. To the college, the critical issue is that all students master the competencies for a course, not the path the students take to mastery. Not all programs allow instructors this latitude; for example, the nursing program proscribes assessment tools and many teaching and learning activities, to ensure students perform to the level required by external accrediting and licensing entities.

Many instructors use the freedom to deliver instruction to adapt to individual student learning styles, or to bring topical events into the classroom. Since most programs only proscribe the highest-level outcomes, an instructor can tap into job-related experiences to bring currency to his or her instruction.

From the student perspective, students are encouraged to apply critical and creative thinking to course activities. The college has broadly deployed technology like computer labs and simulators, which makes information easily accessible. Many classes use group activities to encourage teamwork and interaction; some programs and divisions use early temperament evaluation tools to prime students for understanding others' points of view. Students also have a range of student clubs and organizations (Table 8) that unite students with common interests.

Course syllabi include the college's academic integrity policy, which stresses among other things respect for intellectual property. The college also offers many options for taking courses: face-to-face, instructional television, independent study, advanced standing, online courses, and even the ability for a student to design an associate degree in conjunction with his or

Table 8 Major student clubs and organizations

Organization	Purpose
Association for Information Technology Professionals (AITP)	Information Technology program students are eligible for membership in this nationally affiliated student organization.
Civil Engineering Technology Highway Technician Club	Civil Engineering Technology Highway Technician Club Membership is open to students in the Civil Engineering Technology/Highway Technician program.
Cosmetology & Barbering Club	Cosmetology & Barbering program students are eligible to become members. The club works to raise funds for seminars and beauty shows.
Criminal Justice-Corrections Student Organization (CJSO)	The Criminal Justice-Corrections Student Organization is open to any students in either the Corrections or the Law Enforcement programs. The purpose is to provide a forum for current, future, and past employees of this field to share opportunities.
Criminal Justice-Law Enforcement Organization (CJLEO)	The Criminal Justice-Law Enforcement organization works in partnership with various civic groups and other organizations to promote the delivery of services needed. Membership is open to program students and those students currently on the waiting list.
Mid-State Student Nurses' Association (MSNA)	The MSNA is open to any student taking nursing courses and those students on the waiting list for the nursing program. MSNA is associated with the National Student Nurses' Association and the Wisconsin Student Nurses' Association. The organization provides learning beyond the nursing curriculum and offers health-related community services. Participation in MSNA prepares students for eventual participation in professional nursing organizations.
MSTC Athletic Booster Club	The Booster Club promotes and supports athletic programs at MSTC. Membership is open to any individual, family, or business contributing to the club. Membership fees vary according to the type of membership.
Student Society of Arboriculture (SSA)	The college's SSA is a branch of the International Society of Arboriculture. SSA gets students involved through weekly meetings, guest speakers from industry (private companies, municipalities, DNR), and community and high school visits to share information on the MSTC Urban Forestry Technician program. SSA holds an annual Arbor Day Event each spring.
Student Senate and Student Activities Board	The Student Senate and Student Activities Board promotes leadership and school spirit, plans organized events and activities and provides an important liaison between school administrators and the student body.
Athletics	Sports are available to men and women on the intercollegiate and intramural level. Intercollegiate Activities: MSTC is a member of the National Junior College Athletic Association (NJCAA), Wisconsin Technical College Conference (WTCC), and Wisconsin Junior College Athletic Association (WJCAA) where it competes with other technical colleges, University of Wisconsin Colleges and other post-secondary schools. Women's basketball and volleyball and men's basketball are currently offered.

her employer.

Process

1P1 Common student learning and program objectives

Core abilities (Table 3) and general education outcomes (Table 4) are common learning outcomes at MSTC. The common learning outcomes are promulgated by a mixture of internal and external groups.

Core abilities were initially created based on work done by the standing Student Academic Achievement (SAA) committee. The SAA committee's work on the core abilities grew out of the college's Impact strategic planning process (1994-1998). The committee worked with employers and program advisory committees to develop a list of skills that aided in job success.

The core abilities and the indicators were refined by collecting information from academic and business institutions. In addition, the current list of core abilities was also shaped by external political forces; for instance, although the core abilities used at MSTC predate the current governor's job creation plan (called Grow Wisconsin), the core abilities support the plan by working to ensure that MSTC graduates display the skills necessary to succeed in the workplace.

General education outcomes (GEOs) were developed in the late 1990s. In conjunction with the college's core abilities GEOs are common student outcomes, targeted to skills specific to the college's general education courses. The GEOs form a critical foundation for success in the program-specific courses, and were developed by MSTC faculty in general education.

Program outcomes also were developed in the late 1990s, by division deans and associate deans working in concert with program advisory committees and faculty. The push to develop program outcomes came from the college's Executive Committee.

Program outcomes are developed by a program deans and associate deans in conjunction with the program advisory committee. Advisory committees are groups of local subject-matter experts who provide input specific to a program or course of study. Committee members serve three year terms; the committees meet at least once a year and often once a semester. Committee members are nominated by the division and appointed by the college's board of directors.

Program advisory committees serve in an advisory capacity. Program faculty members attend the meetings to provide input and clarification. However internal staff do not serve on the advisory committee. Program outcomes are also shaped by employers and faculty that teach the classes in the program. Finally, some program outcomes are shaped by external accrediting bodies. Examples of programs whose outcomes are heavily shaped by external bodies include automotive technician (ASE), nursing, and cosmetology.

1P2 Designing programs and courses

Programs and courses at MSTC are developed using established processes. When changes in an industry or practice require it, faculty members work in conjunction with the program dean or associate dean to develop new classes or revise existing classes. The college has staff members trained in the WIDS curriculum design model, who assist the faculty members with curriculum development. Throughout the development or revision process, the dean or associate dean works closely with the vice president of academic affairs to ensure that resources are available for the process. When completed, the course is sent to the system office for approval by the Education Director responsible for the program area in which the course resides.

Programs also have an established approval process. To develop a new program, the college submits a letter of interest to the Wisconsin Technical College System office and then completes a needs assessment to validate that employer demand and job opportunities exist in the program's area of focus. Once this has been validated the request for program approval and implementation is brought to the college board for approval and if given it then progresses on to the WTCS board for their consideration and approval. This program approval process typically takes one year to complete. Individual courses within the approved program follow the process outlined in the previous paragraph

1P3 Determining student preparation

Most students enrolling in the college take the Accuplacer, a nationally normed placement test used by two- and four-year colleges. Divisions establish entry scores for program admission. Students with Accuplacer scores lower than the program cutoff score are advised and then referred to the Academic Support Center (ASC) for remediation.

Before moving to the Accuplacer in 2002, MSTC used the TABE and COMPASS tests. Students who took a test other than Accuplacer are admitted to the college using a crosswalk table to approximate an Accuplacer score. A student may choose to take the Accuplacer in lieu of another test if he or she feels the admissions

score arrived at using the crosswalk table is incorrect.

1P4 Communicating expectations to students

The college communicates expectations to students in several ways. First, every course has a syllabus, which outlines the course outcomes including core abilities, program and course outcomes, and other critical expectations. Each syllabus discusses academic integrity, attendance, diversity, and behavioral expectations as well.

Second, the college posts the student core abilities throughout the college. Every classroom has the core abilities posted, and instructors use the core abilities in classes. For instance, evaluation forms used in internships, team projects, and supervised occupational experiences use the core abilities as evaluation criteria.

Third, the student handbook outlines various policies and expectations, including such things as the academic integrity expectations and the policies for students with disabilities. At the division level, most Service and Health programs have defined functional abilities for students, which are skills the students must master in order to graduate from a program.

Finally, the small size of the college in general and many programs in specific means that the contact between instructors and students is significant. In many cases, the interaction between student and instructor is more like that between a protégé and a mentor. Instructors are subject-matter experts and work closely with students to help the students master the competency or technical skill.

1P5 Helping students select programs

At MSTC, helping students select programs that meet the students' needs, interests, and abilities is an integrated process, with each step forming the foundation for subsequent steps. Program selection and guidance occurs in three phases, each with distinct characteristics. The program selection activities in each of the three phases are summarized in Table 9.

Self-selection and guided selection activities are managed by Student Affairs, while post-enrollment activities (with the exception of special needs accommodations) are administered by Academic Affairs. Disparities between required academic preparation and actual skill level typically are dealt with prior to the enrollment phase. The Academic Support Center (ASC) provides remediation and skill enhancement for under-prepared students. The five-week academic alert process identifies students at risk for not succeeding in courses, and provides support services for on-the-spot remediation and academic support. The five-week alert is designed to provide adequate academic recovery time for students, since the college is on 18-week semesters. However, the five-week alert is not proscriptive; it is a referral process, which the student is free to ignore.

Table 9 Phases in the MSTC student selection process

Self-Selection	Guided Selection	Post-Enrollment
Career Days	Case management	Program Orientations
Program visitations	Assessments	Academic Support
Open houses	Accuplacer	Structured classroom remediation
Education Fairs	TABE	Peer tutoring
Enrollment Service activities	ACT	Individual study
Web site	Compusearch Online	Study strategies
HS Counselor Workshop	WISC Online	College SuccessSkills course
Parent Nights	Career Awareness and Assessment course	Special needs accommodations
Tech Prep	Personal goal-setting	Five-week academic alerts
School-to-Work	Strategies	
Youth Options	Self-reflection	
Job shadowing	Placement information	
College marketing materials	Secondary Transitional Meetings	
Financial aid resources	For students with disabilities moving into post-secondary education	
College Camp (middle-school career exploration)	Community referrals	
	Dislocated workers	
	Probation and parole	
	Community action programs	
	Enrollment advising	

The self-selection phase is designed primarily to provide parents and students with information about the programs available at the college. Self-selection process activities such as Open House and Parent Night are targeted to parents, while college fairs, career days, and program visitations are designed for prospective students. The college has strong working relationships with secondary school colleagues; high school personnel are often the first point of contact for prospective students. The strong working relationship between MSTC and the 16 high schools (12 public and 4 private) in the district is evinced by the more than 27% of district high school students directly enrolling at MSTC in fiscal year 2004. Although MSTC is the fourth-smallest district in the WTCS in terms of enrollments, the direct high school enrollment number is the fifth-highest in the system.

As prospective students near a decision, the guided

selection phase begins. MSTC builds the guided selection process on a case-management model, with divisional counselors who provide specific guidance and assessment support. Divisional counselors are dedicated specifically to one academic division such as business or health. Dedicating resources ensures subject-matter expertise in the student advising process. The counseling staff guides prospective students through entrance testing, discusses academic requirements for programs, and assists students through application and enrollment. The guided selection process is tied closely to the needs of community referral agencies as well, providing guided selection services to displaced workers, for example.

One of the college's action projects focused on the advising process for new students. The team reviewed the literature on advising and began a benchmarking process to identify effective advising practices. To garner involvement from others in the college, the Team developed and administered a survey early in the spring semester to elicit feedback on the components of an effective advising process. Additionally, members of the team visited a peer institution to gather information on its advising process, and brought this information back for discussion and consideration for adoption. The academic year concluded with the team modifying the peer institutions' advising guidelines to develop an advising model the team offered to the college's executive committee for suggested adoption.

Based on input from the guided selection process, a student enrolls and enters the final phase of the process. Support in the post-enrollment phase is primarily the responsibility of Academic Affairs, and is driven by divisional stakeholders. Twenty-two of MSTC's 45 programs have program orientations designed to clarify program expectations for students. As instructors identify students needing remediation or skill improvement, students are referred to the ASC for assistance. Students also may be directed to the College Success Skills course by division personnel.

IP6 Documenting effective teaching and learning

For faculty members, classroom observation by his or her dean or associate dean is part of the annual evaluation process. In addition, the dean or associate dean evaluates annual curriculum projects to ensure that competencies and learning objectives are measurable and observable.

Deans and associate deans review all of the student course evaluations, and discuss opportunities for improvement or recognize excellent performance in the annual review process. Deans and associate deans also review grade distribution reports for individual classes. Although course grades are an indirect measure of teaching and learning, in concert with the other measures course grades add some information to the equation.

Many programs also require some type of on-the-job skill application, in the form of clinicals or supervised occupational experience. Employers provide direct feedback on each student's job skills, a direct measure of teaching and learning effectiveness.

1P7 Building course delivery systems

The college has a curriculum development matrix that is used to calculate faculty time to redesign curricula for different delivery methodologies. Courses are typically delivered first in a traditional face-to-face mode; once a course has been developed it can be modified for delivery as an independent study, a hybrid (with both face-to-face and online components), an online course, or for instructional television. The curriculum matrix and design process requires that competencies, learning objectives, performance criteria, and conditions for performance remain the same across delivery modalities. Instructors are free to modify learning activities to suit student learning styles, delivery modalities, or other course characteristics to improve student learning.

Direct support for course and curricular development is provided by the Employee Development Center, while funding is provided through the college's curriculum development fund.

1P8 Monitoring curricular currency and effectiveness

The college's process for monitoring curricular currency and effectiveness has both internal and external components. Each component is discussed below.

Internally, curricula are monitored by instructors in instructional area teams. Each instructor is intimately familiar with his or her industry, and uses this expertise to ensure program curricula are up to date. Curricular currency is driven by continual upgrades and improvement in individual program courses. Changes in courses and curricula are scrutinized by deans and associate deans for further validation.

Externally, curricula are critically evaluated by program advisory committees. Advisory committees, made up of practicing professionals in a field, provide real-world input on the design of program curricula. The input of advisory committee members ensures that technical programs at the college adapt to changes in practice in the field. Another external source of information is the college's Employer Feedback survey. One question on the survey asks if students hired by a company had the skills necessary for entry-

level jobs. Responses by employers either validate curricular currency in a program or point out areas needing improvement.

Programs are also reviewed by external groups, in a process called program reviews. The nursing program recently completed such a review; individuals from around the state came to the college and evaluated the curriculum. In addition to program reviews, programs requiring accreditation by external bodies also undergo periodic evaluations of curricular currency and effectiveness.

1P9 Learning support for students and faculty

MSTC uses a case-management model to provide student learning support, which the college views as a central part of managing students in their academic careers. Case management involves engaging the student, addressing job placement, conducting assessments, or otherwise providing services that help students succeed in college. The college collects data on student needs for learning support in both direct and indirect ways.

As a means of directly assessing student needs, the college administers the Noel-Levitz Student Satisfaction Inventory (SSI). The SSI was first administered in 2002. A follow-up survey was used in 2003, to drive a stake in the ground to determine whether changes made based on the results of the first administration of the SSI were having an effect. The plan is to administer the SSI every other year into the future; the next administration is planned for the 2005-2006 school year. Another direct measure of student learning support needs is the college's student course feedback form. Each semester, deans and associate deans solicit course feedback from about 25% of the more than 800 associate degree and technical diploma courses offered by the college. The information garnered by the student feedback process is placed in comparative context (i.e. "average student rating for all classes was 4.20; in this class students rated it as 4.35"), and qualitative feedback is reviewed by both administrators and faculty. Response rates for the student feedback are high; for instance, the response rate for spring semester 2004 was 99.6% (3,499 students enrolled in the surveyed courses, with 3,485 responses). Response rates for student feedback forms typically range between 75 and 85%.

Indirectly, student learning support needs are identified through instructor referral, feedback from study groups, and peer notification. Another more formal means of identifying student learning support needs is the five-week academic referral program. The college also spots student learning support needs through student self-identification.

The college identifies faculty learning support needs in several ways. As an organization, the college provides a significant number of short-duration learning opportunities to help faculty members master the technologies deployed in the college. The learning opportunities include biannual Technology Sessions, and several dozen "Learn-a-Skill Quick" sessions each semester. The college also has more than 800 Internet-delivered professional development courses available to faculty and staff at no charge. The wide range of offerings means that faculty members have the opportunity to meet learning support needs in a way that is convenient. Adding to the convenience, the college maintains a Faculty Resource Center (FRC) at each campus, with an Employee Development Center (EDC) in Wisconsin Rapids that serves faculty from across the district.

Other drivers for identifying faculty learning support needs come from advisory committees suggesting training to maintain faculty occupational currency, faculty self-identification (including funding requests to the college's Professional Growth Committee), the formal Faculty Mentoring program, or divisional meetings. The college has processes designed to meet the needs identified through such organizational sources.

The college provides two in-service training opportunities each year, at the beginning of each semester. Faculty attendance is expected, and continues to remain strong. In addition, other staff members attend depending on the topic. The beginning portion of each in-service is informational, but over the past three years the primary emphasis of in-service has been training and staff development activities. Infrastructure associated with student and faculty learning support needs is provided by a variety of organizations in the college.

A partial list is provided in Table 10.

1P10 Aligning curriculum and co-curricular goals

The nine MSTC core abilities are posted widely throughout the college, and form an integral part of each course offered at the college. The core abilities are listed in Table 3. Co-curricular activities tie to the college's core abilities, although the relationship is often not formalized.

The college has student-centered activities such as Student Senate and occupational clubs that are integral to student success; in some cases participation in clubs counts toward the training hour requirements in some programs (Cosmetology is one example). The various organizations falling under this umbrella help students develop skills necessary for the workplace. MSTC also

Table 10 Meeting learning support needs

Infrastructure	Focus & products
Academic Support Center (ASC)	Student: Personal Education Plans
Library	Student: Electronic and hard-copy learning support materials Faculty and Staff: Electronic and hard-copy learning support materials
Research support and assistance	Faculty and Staff: Reports, data sources
Special needs support	Student: Developing accommodations, providing evaluation services, AODA, Evaluation Center
Counseling	Student: Internal and external community resources Faculty and Staff: Employee Assistance Program
Tutoring	Student: Peer support for academic and program courses
Employee Development Center and Faculty Resource Centers	Faculty and Staff: Support for technology used in offices or classrooms
Information Technology	Student: Computer labs and technical support Faculty: Desktop systems, training in back-office software environment (PeopleSoft)

fields a number of intercollegiate sports, including men's and women's basketball and volleyball; athletics allow students to develop time management and teamwork skills critical to the work environment. The college is a member of the National Junior College Athletic Association (NJCAA), Wisconsin Technical College Conference (WTCC), Wisconsin Junior College Conference (WTCC), and Wisconsin Junior College Athletic Association (WJCAA). Table 8 lists common student organizations.

Formal activities offered by the college also tie well to curricular goals. Programs such as Brown Bag seminars, speakers, needs surveys, Cultural Connection (programs highlighting diversity issues), and international trips (including Global Classroom, and student and faculty exchanges with the German state of Hessen) all serve to unify co-curricular goals with curricular goals. In addition, the college has community-centered activities that serve to build bridges between students and the community at large. In 2005, community-focused activities included Hoops for Hunger (an event tying together the Marketing program, the basketball teams, and district food pantries), the Community Progress Initiative, the MSTC Foundation, local job fairs, the World of Corrections, and job placement counseling.

For the past three years, MSTC has served as the host site for Wisconsin's Region II DECA (Distributive Education Clubs of America) annual competition. Nearly 400 students from nine high schools in central and northern Wisconsin attend the competition; MSTC students participate in various capacities to support the competition. Another 90 faculty, staff, and advisory committee members also participate as judges, while business community leaders who may know little about MSTC are exposed to the college. Judges in the competition came from 30 different communities in Wisconsin. The DECA competition is an excellent example of teamwork and communication, directly tying curricular and co-curricular activities together.

Another tie between curricular learning objectives and co-curricular goals is the MSTC Foundation. The Foundation provides resources to the college that benefit its students, staff, and educational programs. The Foundation partners with donors to support and strengthen the college's role in serving the educational needs of central Wisconsin.

Established in 1979, the MSTC Foundation is a not-for-profit organization related to, but separate from, the college. The Foundation's funding priorities include student scholarships (more than 70 percent of MSTC students have financial need), retention funding and services, and special program support. Scholarship application questions are closely aligned to MSTC's core abilities. In the 2005-2006 school year, the Foundation provided approximately $131,000 in scholarships to more than 180 students.

MSTC's Career Services office helps students find employment. One part of the career process the office manages is references for the student from faculty members. The student reference form is built on the core abilities, which is a concrete demonstration for students, faculty, and employers of the centrality of the core abilities to the college. Placing the core abilities on the student reference form mirrors their use on evaluations for internships and supervised occupational experience activity forms.

1P11 Processes for student assessment

The curriculum design process for courses at MSTC requires that instructors develop (as a minimum) three types of components: Outcomes (including course competencies, external licensure or certification standards, program outcomes, core abilities, and general education outcomes), performance standards (the assessment component), and learning (the individual learning objectives that lead to mastery of the course outcomes). The development of the performance standards is discussed below.

The WIDS curriculum design model requires the

development of both conditions and criteria. The WIDS training material states "Conditions describe the situation in which performance will be assessed. Performance conditions answer questions about what equipment or supplies will be provided; what resources or references will be denied; and the setting or format for the assessment." Examples of conditions include: "In a written assignment…," "Using a given blueprint…" et cetera.

The second part of the assessment component is the criteria. In the WIDS model, "Criteria establish expectations (specifications) by which performance is evaluated. They describe satisfactory performance and provide the basis for judging whether or not performance is acceptable. Criteria may be developed to assess a process, a product, or both a process and a product. Criteria may specify accuracy, speed, frequency, percentage or number to be achieved, degree of excellence, qualities/elements of performance, or may reference published standards." Examples of criteria include: "part is within ±0.001 inch tolerance, as measured by a micrometer" or " report exhibits correct grammar, usage, spelling, and punctuation."

Each extant or in-development course at the college must have the assessment components outlined above. Deans and associate deans review new curricula to ensure that the components are included.

1P12 Student preparation for further education and employment

Mid-State Technical College uses direct and indirect measures of student preparation for further education and employment. Some measures are internal, and others are driven by the WTCS board. The system board measures allow the college to benchmark its performance against peer institutions in the WTCS (of the sixteen colleges in the WTCS, 12 are AQIP schools, with at least one more in the application process).

The college discovers how well students are prepared for further education in several ways. Direct measures include student success in capstone experiences or courses. Many programs have capstones, which are designed to allow the students to integrate all of the program and general education knowledge and skills into his or her performance. For instance the cosmetology capstone has the student prepare a complete look for a model, including hair, make-up, and clothing. The model then participates in a runway show with advisory committee members serving as judges. In the network specialist program, the capstone activity is a 72- or 144-hour internship with a local employer. The student is evaluated by the instructor and the business supervisor.

Another type of direct measure is performance on licensure exams. Many health programs prepare students for licensure examinations; other programs with licensure examinations include automotive technician and cosmetology. Passing licensure examinations demonstrates mastery of the basic skills necessary to perform in a profession, and in general demonstrates acquisition of the technical skills taught in baccalaureate programs. This helps students to gain entry to and succeed in baccalaureate programs, which are the next logical step for an associate-degree student seeking further education.

Indirect measures of preparation for further education are also collected. Measures include graduation rate and course completion rate, which are collected by the individual colleges and compiled by the WTCS. Another indirect measure of preparation for further education is the college's list of articulation or transfer agreements with four-year institutions. The fact that private four-year institutions accept most of the credits from an associate degree program is an indicator that the four-year institution recognizes the rigor of MSTC courses and the academic preparation of MSTC students.

Determining whether students are ready for employment uses some of the same direct and indirect measures used to determine preparation for education. Licensure examinations, clinical worksite evaluations, and employer evaluations of students on internships are all direct measures of student preparation for employment. Another direct measure is employment in-field; at the behest of the WTCS the college surveys students six months after graduation to determine whether or not the graduate was employed in the field in which he or she studied. Since 2000, the college has had an average response rate on the graduate follow-up survey of 74.25%.

Mid-State Technical College uses both formal and informal indirect measures to determine if graduates were prepared for employment. Formal measures center around three surveys, two administered by the WTCS and one administered by MSTC. The WTCS instruments include a five-year employer and longitudinal graduate surveys. The employer survey asks about graduate preparation and value to the organization, while the longitudinal survey asks similar questions but from the perspective of the graduate rather than the employer.

The annual MSTC survey (mandated by the WTCS) asks the graduate to assess whether he or she was taught the skills necessary for the job in which they work. The results from this survey are reported back

to the divisions, which use the information for possible program revisions.

Employers provide feedback about student preparation for employment through three routes. The first is through informal and formal employer feedback, either about particular students or graduates in general. This information most often flows through division deans or instructors who have close working relationships with area employers. The second path for employer feedback about graduates is through service on advisory committees. Since the program advisory committees are made up of program subject-matter experts, the committee members are in an excellent position to provide information about graduate skill sets and emerging business requirements. Like formal and informal employer feedback, advisory committee feedback also flows through the division deans and program instructors. The third avenue is the WTCS employer satisfaction survey. This survey asks employers directly about experience with WTCS graduates.

A final example of an indirect measure of preparation for employment is the WTCS retraining guarantee. The WTCS guarantees up to six free credits of additional instruction to graduates of programs of at least one year in length who do not obtain or maintain employment in their program or related area within six months after graduation. In the past six years only one MSTC graduate has applied for credits under the guarantee, but the student did not meet the criteria for the program. This could lead to the conclusion that MSTC graduates are prepared for employment.

1P13 Measures of student performance

Mid-State Technical College collects a significant amount of information about student performance. Some of the data are driven by needs of internal stakeholders, and some data are driven by external stakeholders.

At the system level, the WTCS has implemented a system called the Quality Review Process (QRP). The QRP structure has three tiers; tier one has common statewide performance measures, tier two is a set of college-specific measures, and tier three are college-specific, program-specific measures. Table 11 lists the common QRP measures for the WTCS, and Table 12 lists MSTC's college-wide measures.

The state-level QRP measures are designed for college-to-college comparisons within the WTCS; threshold and target performance levels on the measures are defined in terms of district performance. For instance, threshold performance (the minimal desired performance on a QRP indicator) is defined as the average performance of the four lowest-performing districts, while target performance is defined as the average of the four best-performing districts. Threshold and target levels are modified if there are fewer than five programs in the Wisconsin technical college system (e.g. MSTC's Urban Forestry program is unique; there are no other programs like it). The QRP program was piloted with a small number of programs in 2003, and is in the process of being rolled out system-wide.

Several programs at MSTC prepare students for licensure exams. In programs preparing students for exams, the college collects and analyzes student success rates on the exams. For instance, nursing students take the NCLEX-RN exam and the nursing program tracks and uses the student success rate in evaluating teaching and learning activities.

Other measures of student performance are collected, but not in a systematic way. The measures are either specific to a division or program, an instructor, or are college-wide but not aggregated or analyzed. Examples include course completion rates, pre- and post-assessment (both direct and indirect), core ability mastery (the student reference form is an example; data are collected but never analyzed), GPAs, aggregated classroom assessments, and enrollment data.

Finally, student performance measures are collected in the college's survey activities. Examples include periodic employer surveys and graduate follow-up surveys, which are discussed in depth in section 1P12.

Results

1R1 Common and program learning objectives

Mid-State Technical College has three types of exit learning outcomes at the college: Core abilities, general education outcomes, and program outcomes. The results and the use of those results vary across the type of exit learning outcome.

Core abilities, although important to the college, are not directly measured universally. Some programs, most notably nursing, use a rubric to assess student mastery of the college's nine core abilities. Other programs may link the core abilities to course competencies, but there is no central repository showing which core abilities are linked to particular courses or programs. Core ability mastery data are not aggregated.

Results on the mastery of general education outcomes are collected and shared within the General Education division. General education classes use standard

Table 11 WTCS system QRP indicators

	Indicator	Definition
1	Course Completion	Percentage of students in a program who completed at least 80% of the courses they took the previous year
1a	Special Population Course Completion	Same as all student course completion, for students identified as belonging to Special Population
1b	Minority Student Course Completion	Same as all student course completion, for students identified as belonging to Minority Population
2	Second Retention	Percent of *first time students* still enrolled or graduated from the program in the most current record for the program after two years
3	Third Retention	Percent of *first time students* still enrolled or graduated from the program in the most current record for the program after three years
4	Third Year Graduation	Percent of *first time students* graduating in three years
5	Fifth Graduation	Percent of *first time students* graduating in five years
6	Job Placement-All Employment	What percent of most recent graduates respond to the graduate follow up survey, are in the labor market, and are employed
7	Job Placement-Related Employment	What percent of most recent graduates respond to the graduate follow up survey, reported employment and employed in training related employment
8	Nontraditional Gender Enrollment	Percent of students in program are of the gender designated as 'nontraditional' for the occupation (will be N/A for some programs)
	Threshold performance: Average of the 4 lowest program rates or if there are 4 or fewer programs statewide = average rate Target performance: Average of 4 highest program rates or if there are 4 or fewer programs statewide = rate of top program	

Table 12 College QRP indicators

	Indicator	Definition
1	Retention, first to second semester	Percent of students retained from fall semester to spring semester
2	Program enrollment	Number of unduplicated students actively enrolled in a program (i.e. students enrolled in at least one class)
3	Student satisfaction with program	Percentage of students characterizing their satisfaction with the program in which they're enrolled as "satisfied" or "very satisfied."
4	Graduate satisfaction with program	Percentage of graduates characterizing their satisfaction with the program in which they were enrolled as "satisfied" or "very satisfied."

student assessments across the college, and courses use pre- and post-tests to assess progress students make by taking a particular general education course. These data are reviewed by the dean of general education, and shared with the college's Deans Council.

Program outcomes are another exit outcome with sporadic direct measurements. Some programs have licensure exams, to which program outcomes are tied. Good performance on a licensure exam is thus a direct measure of program outcome mastery (For instance, in the nursing program 83.9% of program graduates passed the NCLEX-RN examination on the first attempt. This compares to 83.5% for Wisconsin overall and 88.4% nationally). However, most programs do not have licensure exams, so measurement of program outcome mastery is more difficult. Many programs have capstone courses, which are designed to require the student to use all of the knowledge imparted and skills gained during the students' time in the program. In many ways capstone courses are an analogue to licensure exams, in that students demonstrate mastery of all of the program skills by passing the capstone course. The college does not require capstone courses in programs, and does not aggregate data on student performance in capstones.

Indirect measures for program outcome mastery are more widely available. The college surveys employers and graduates about satisfaction with programs. The inference is that satisfaction with programs and graduates indirectly measures mastery of program outcomes. Other indirect measures include graduation rates and employment in-field. In-field graduation rate is aggregated at the institutional level and reported.

1R2, 1R3, 1R4: Evidence of student skills and knowledge, Category process results, and Benchmarking with other institutions

The nursing program compares pass rates of MSTC on the licensure examination with other two- and four-year colleges. This is unique at MSTC.

Before moving to the PeopleSoft student module for the Fall 2002 semester, the college had a legacy system that provided some limited information. The move to PeopleSoft has provided a great deal of new information, including (since MSTC is part of a three-college consortium sharing a single PeopleSoft installation) the ability to make comparisons with other institutions. At present, MSTC is just starting to use the data in the PeopleSoft system to provide evidence of student skills, monitor category process results, and benchmark performance against other institutions. MSTC is working diligently to establish such data-driven decision-making.

Improvement

1I1 and 1I2: Improving current processes and systems, and Setting targets for improvement

Because MSTC is still developing processes associated with the PeopleSoft implementation, the college uses *ad hoc* procedures for process improvement. As competence with the PeopleSoft system increases, the college will define formal procedures for setting targets for improvement.