

Sinclair Community College/ Miami Valley Tech Prep Consortium

CCTI IMPROVEMENT PLAN 2006-07

Revised October 2006

NOTE: This 5th year of the project, we expand our strategy and activities to include two of our STEM programs: Engineering Technologies Cluster and Biotechnology. Previously, our focus was the Engineering Technologies Cluster alone.

Outcome #1

College Readiness

Reduce the need for remediation of students entering post-secondary education

	Strategy	Action Steps 2006-07	Timeline 2006-07	Resources	Notes
1	Reinforce STEM curriculum and refine the process for articulated coursework b/w HS and SCC.	Review, update, and coordinate proficiency procedures according to college standards and policies.	Fall 2006	MVTPC – Nick Wilson, SCC faculty mentors	
		Create and distribute appropriate procedural documentation for teachers and students for college credit available. Update and issue SCC faculty PSAs accordingly.	Fall/ Winter 2006		
		Monitor HS students' performance on SCC proficiency exams for courses included in articulation agreement.	Ongoing	SCC faculty mentors, MVTPC	
		Update and process addendums to the articulation agreements as needed to coincide with SCC course changes.	Fall 2006	MVTPC – Nick Wilson, SCC, HS	
2	Develop effective strategies for secondary	Conduct on-SCC-campus and online administration	Spring 2006	SCC dept. chairs; instructors;	American Diploma Project relevance

	academic instruction to ensure college readiness, and enable college credit option as relevant to STEM pathways	of SCC course proficiency exams for high school seniors.		HS instructors and chairs	
		Develop and pilot an online proficiency course for SCC MAT 101 and BIO 107	Winter/Spring 2006/7	MVTPC – Dave McDaniel, SCC MAT and BIO chairs and instructors	
		Explore additional online proficiency examination options for higher level SCC coursework			
		Track and evaluate student performance on Accuplacer test as juniors in fall and seniors in spring	Ongoing	Ann Collins, SCC IP&R, with MVTPC	
		Replicable Model grant objectives/activities for MAT		HS math dept. chairs, instructors, SCC Math dept., MVTPC	
		Replicable Model grant objectives/activities for BIO		HS Science/Bio dept chairs, instructors, SCC Bio dept., MVTPC	
		Develop and offer a summer bridge course in Math at SCC	Spring/Summer 2007		
		Develop and offer a summer bridge course in English at SCC	Spring/Summer 2007		
		Identify and develop relevant industry involvement for STEM academic initiative	Winter/Spring 2007		Part of STEM Workforce Network
3	Develop effective	Track and evaluate student	Ongoing	Ann Collins, SCC	

	strategies for secondary English/ Language Arts instruction to ensure college English readiness and enable college credit option as relevant	performance on Accuplacer test as juniors in fall and seniors in spring		IP&R, with MVTPC and SCC English faculty	
		Conduct “inventory” of current English/ Language Arts coursework and sequence for ET students at 5 CCTI HS sites.	Spring 2007		Identify correlation to SCC course sequence required for E&IT programs
		Convene HS English/ Lang. Arts instructors and chairs with SCC reps. Evaluate instructional delivery and professional development needs	Spring 2007	Barbara Wallace, SCC Development Studies - Reading & Writing (falls in Extended Learning and Human Svcs. Division)	Technical Communication focus – reading, writing, and research
		Design and provide professional development to HS and SCC English/ Lang. Arts faculty	Spring/Summer 2007		Tie in to MetaMorph 9 th Grade Career Exploration Guarantee; MVCTC’s consultant from out west
		Identify and develop relevant industry involvement for English/ Lang. Arts initiative	Spring/Summer 2007		Part of STEM Workforce Network

Outcome #2

Recruitment and Student Success

Increase enrollment and persistence in post-secondary education

	Strategy	Action Steps 2005-06	Timeline 2005-06	Resources	Notes
4	Provide focused professional development for instructors	Identify, design and provide (as relevant) for secondary and post-secondary instructors, in context with MetaMorph and academic initiatives.	Ongoing	MVTPC, SCC	Business/industry participation opportunity as co-recipient and potential provider
5	Provide on-college campus recruitment activities for students	Conduct recruitment Awareness Day on SCC campus for 10 th grade students, parents, and teachers	Tech Prep ETC Awareness Day February 2, 2007		Consider need/ability to invite 9 th grade students with 10 th graders, for those sites with PLTW earlier start.
6	Provide on-college campus orientation and immersion activities for students (secondary and post-secondary)	Provide 11 th grade orientation/competition day on SCC campus for students and teachers. Administer an evaluation of the event.	Tech Prep ETC Junior Orientation at SCC – February 2, 2007	SCC Engineering Day for areawide high schools conducted Feb. 23, 2007	.Personally invite Tech Prep classes.
		Conduct 12 th grade Manufacturing Competition.	Senior manufacturing competition September – December 2006	Tom Carlisle	
		Facilitate junior and senior student participation in Tech Prep Showcase.	Tech Prep Student Showcase at SCC – March 1, 2007		
		Conduct a celebration luncheon/Open House for recent Tech Prep HS graduates currently enrolled in E&IT at SCC	Winter 2006		Recruit college Tech Prep students as “Student Ambassadors”

		Design and implement a college Tech Prep “Student Ambassador” program for E&IT division at SCC	Winter 2006		Utilize for HS recruiting and marketing, and on-college-campus high school student activities described above
7	Provide on-college campus networking and professional development activities for teachers	Provide professional development/ networking day for all STEM HS/SCC instructors with industry involvement. Administer an evaluation of the event.	Tech Prep ETC Instructor Summit at SCC December 1, 2006; Tech Prep Biotech Instructor Symposia; PLTW Ohio conference October 2006		Program manager in MVTPC sends frequent news, items and resources of interest to instructors.
8	Incorporate national Career Cluster Critical Component Measures into MVTPC’s ET Cluster pathway	Conduct a session for high school instructors, counselors, and administrators at SCC to complete self-assessment.	Winter 2006/07	MVTPC	
9	Provide early orientation and outreach services at 8/9 th grade level	Continue to implement, provide training for, and evaluate MetaMorph 9 th Grade Career Exploration Guarantee	2006-07	Kathy Kingston, MVTPC, DACC, HS English teachers	Linked to Ohio Graduation Test English/ Language Arts outcomes.
		Identify and recommend to career development coordinators, counselors, and teachers relevant STEM-specific tools and career guides for follow-up to 9 th Grade Career Exploration Guarantee	Ongoing 2006-07 10 th grade counselors meeting October 2006 12 th grade counselors meeting Spring 2007	Bob Sheehan, MVTPC	Inventory career profiles contained in MetaMorph and identify any gaps across ET fields and SCC programs Southwest Career Council

		<p>Identify best practices and materials and programs available.</p> <p>Communicate to 8/9th grade guidance counselors, teachers, students, and parents</p>	Ongoing	<p>JETS, professional engineering and technical societies, Affiliate Societies Council of Dayton's TechFest, student competitions, SCC E&IT Counselors, SCC WIET, SCC CP&PC.</p>	<p>PLTW Ohio, Career Development Coordinators from Career Centers can serve as liaisons to middle schools; SCC AQIP initiative (Ron Kindell);</p>
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Outcome #3

Achievement

Improve academic and skill achievement at secondary and post-secondary levels

	Strategy	Action Steps 2005-06	Timeline 2005-06	Resources	Notes
10	Expand/improve contextual instructional techniques among academic and technical faculty at HS and college levels	Develop reengineered TIES 2006. Consider offering career field-focused Tech Odyssey	Plan winter/spring 2007 for summer workshops.	Indexed, downloadable TIES curriculum available on MVTPC website (www.mvtechprep.org)	Teachers in Industry for Educational Support (TIES) – worksite externship plus development of curriculum. Tech Odyssey – 1-week immersion workshop w/ business/industry connection, esp. for counselors.
11	Improve pre-college placement and assessment for STEM students	Monitor SCC Accuplacer assessment and results of 11 th and 12 th grade students	Ongoing	MVTPC, SCC Ann Collins, SCC Testing Center	Recommend that HS instructors take AccuPlacer test themselves
		Develop online testing for MAT 101 and BIO 107	Winter 2006/07		
12	Enable appropriate and timely academic intervention and remediation for college readiness	Orient HS personnel in use/interpretation of SCC assessment tools	Ongoing	Math 101/131 pilot and Accuplacer testing data analysis and subsequent student advising	Accuplacer instructor orientation session; develop a plan by which to react and advise after testing.

Outcome #4

Transition and Completion

Increase the number of post-secondary degrees, certificates, and licensures

	Strategy	Action Steps 2005-06	Timeline 2005-06	Resources	Notes
13	Maximize and communicate post-secondary program options for HS students in STEM programs and all MVTPC pathways	Annually review articulation agreement (b/w HS and SCC) to ensure alignment with curriculum developments.	Ongoing	MVTPC – Nick Wilson, SCC E&IT Outreach Committee, SCC Articulation Office	
		Maintain and update grades 9-14 Career Pathway Templates for all SCC MVTPC pathways. Post on MVTPC website.	Completed Winter 2006		
		Identify and create documentation used to provide information and orientation about current 2+2+2 options at 4-yr institutions in STEM pathways	Winter 2006/07	Counselors, SCC	Ohio's statewide articulation and transfer module
14	Continually improve financial aid and college transition and retention services for high school students	Coordinate existing financial aid (Tech Prep Scholarship), transfer of credits earned in HS to SCC transcript, and current SCC retention activity	Ongoing	MVTPC – Nick Wilson, SCC Articulation Office	Extensive improvements made, and continue to be made, to MVTPC's database management, allowing additional tracking.
15	Remain abreast of teacher licensure options/ requirements for ET graduates considering a teaching career in ET or STEM	Respond as needed to inquiries	Ongoing	Wright State Univ. (WSU) and UD and OH DOE.	Information available on DOE website.

Outcome #5

Employment

Improve entry into employment and/or further education

	Strategy	Action Steps 2005-06	Timeline 2005-06	Resources	Notes
16	Expand co-op opportunities for SCC ET and STEM students	Identify, increase, and market co-op and part-time job opportunities for E&IT students	Ongoing	Terry Maiwurm, SCC E&IT Co-op Program Coord., SCC faculty, Dayton Area Chamber of Commerce (DACC)	Third Frontier grant Wright Scholar program at WPAFB AFRL, John Horner and Sherry Rich
		Recruit, build, and maintain business/industry partnerships to provide co-op positions	Ongoing	Terry Maiwurm, SCC, DACC	STEM Workforce Network (below)
17	Promote College Tech Prep 2+2+2 options	Include 2+2+2 options on all ET recruitment materials and program information, including MVTPC website	Ongoing	Karen Blake, SCC E&IT Division counselors. UD, other four-year institutions	For all MVTPC pathways
18	Communicate current employment forecast information to STEM HS and college students	Obtain and disseminate employment information regularly from DACC and other sources	Ongoing	SCC CP&PC; DACC Workforce Dev't Mgr.	Monthly info available on www.dacc.org MVTPC Program Mgr.'s regular communications.
19	Facilitate worksite-based learning opportunities for students and educators	Conduct joint industrial advisory committee meetings for STEM pathways at SCC	Spring 2006 Spring 2007	MVTPC, SCC E&IT, UD, DACC, SCC Corporate Svcs.	