

# **Seymour & Esther Padnos College of Engineering & Computing**

## ***INCLUSION PLAN***

**January, 2010**

## Action Area 1: Access and Equity – Recruitment and Retention (faculty, staff, students)

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
Increase the presence of faculty from underrepresented groups (Latino, Native American, African American), LGBT, international and faculty with disabilities	<p>Utilize university Affirmative Action Plan to identify under-utilization of minorities and women</p> <p>Network with diverse professional associations</p> <p>Advertise in diverse publications</p>	<p><i>Continue to enrich an already diverse faculty (focus = female participation / based upon university data)</i></p> <p>2009 Baseline:                      - PCEC Female = 12.5% (19% – 20% avail.) (U)                      -PCEC URE = 30.4% (6.1 - 6.4% avail.)                      -GVSU URE = 15%</p> <p>Note: Affiliates are included in PCEC data</p> <p>Note: URE = Under-represented ethnicity</p> <p>Note: U = Under-represented</p>	<p>Utilize university data (O)</p> <p>Advertise in diverse publications and on-line resources (O)</p> <p>Maintain &amp; expand visibility within diverse organizations including NSBE, SWE, etc.(O)                      -SWE Conf activities                      -NSBE Conf activities                      -ASEE MIND Division                      -WIC Conf</p> <p>Utilize NSF Advance Project materials, lessons learned, techniques, etc.</p> <p>Train Inclusion Advocates for Search and Personnel Committees and for School Inclusion mentoring (O)</p>	<p>PCEC demographics -vs- available population per I&amp;E reports</p> <p>Trends in under-represented populations in applicant pools</p>	<p>College Deans (P) Schools (P2)</p> <p>Office of the Provost</p> <p>Division of Inclusion and Equity - Office of Affirmative Action</p>

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<p>Increase the presence of students from historically underrepresented groups (Latino, native American, African American)</p>	<p>Focus additional recruitment efforts in diverse local areas such as Holland, Grand Rapids, Muskegon, Benton Harbor, Flint, Wyoming, etc.</p> <p>Provide information and consultation in support of individual college recruitment efforts as requested.</p>	<p><i><b>Exceed GVSU ethnic diversity demographics</b></i></p> <p><i><b>Close gap with national averages for discipline area diversity demographics</b></i></p> <p>2009 Baseline:                      - GVSU = 11.8% URE                      - PCEC = 12.0% URE                      - National Avg EGR=17.6%                      - National Avg CIS=29.1%</p> <p><i><b>Increase female participation and retention (counter to national trends of decreasing female participation).</b></i></p> <p>2009 Baseline:                      -PCEC Female = 10%</p>	<p>Collaborate with and leverage university initiatives (O)                      -OMA Activities                      -Facilitate student visitation &amp; tours (O)</p> <p>Pipeline Activities (see below) (O)</p> <p>Support and leverage student sections of professional societies (O)</p> <p>Appropriately expand curricular offerings in areas that attract female students such as biomedical engineering (O)</p> <p>Partner with other GVSU colleges on external funding</p>	<p>PCEC statistics -vs- GVSU statistics and national statistics per I&amp;E and national reports</p> <p>Track trends of PCEC statistics and national trends</p> <p>PCEC statistics -vs- national averages</p> <p>Track trends of PCEC statistics and national trends</p>	<p>Office of Admissions (P)</p> <p>College Faculty and Regional Sites                      -PCEC Dean (P2)                      -PCEC Student Services Office (P2)                      -PCEC Schools (P2)</p> <p>Office of Admissions (P)</p> <p>College Faculty and Regional Sites                      -PCEC Dean (P2)                      -PCEC Student</p>

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		-PCEC Fr-Female = 13.5% -National Female EGR=16.7 -National Female CIS=18%	<p>opportunities that support female students such as NSF – PRISM (O)</p> <p>Collaborate with and leverage university initiatives (particularly RMSC) (O)</p> <p>Pipeline Activities (see below) (O)</p> <p>Support and leverage student sections of professional societies including SWE and S. Fleischmann ladies tea program (do we currently include CIS students?) (O)</p> <p>Utilize faculty from under-represented groups as mentors and role models (N?)</p>		Services Office (P2) -PCEC Schools (P2)

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University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
Increase the presence of international students		<p><i>Continue to expand the number of international students and to exceed GVSU international demographic</i></p> <p>2009 Baseline: GVSU = 1.26% Intl. PCEC = 30 Intl. Students PCEC = 2.6% Intl.</p>	<p>Collaborate with and leverage university initiatives (particularly PIC) (O)</p> <p>Faculty alma mater visitation &amp; partnering program(O)</p> <p>Increase GA opportunities(O)</p> <p>Highlight current successful international students.</p>	<p>PCEC statistics -vs- GVSU data per I&amp;E reports</p> <p>Annual review of number of GA positions (base and project funded)</p>	<p>Office of Admissions (P)</p> <p>College Faculty and Regional Sites -PCEC Dean (P2) -PCEC Student Services Office (P2) -PCEC Schools (P2)</p>
	<p>Develop a community college initiative that follows students through their 2 years and supports successful transition to GVSU.</p> <p>Identify/address barriers to access for transfer students.</p>	<p><i>Enhance Community College Interaction &amp; Transfer Clarity</i></p> <p>2009 Baseline: Fall '09 EGR X-fer = 51 Fall '09 CIS X-fer = 25</p>	<p>Leverage MECCA activities (O)</p> <p>Enhance web based advising resources (E)</p> <p>Collaborate with Admissions re: Community College liaison activities (briefing luncheons,</p>	<p>Track trend of transfer students to PCEC each year</p>	<p>College Faculty and Regional Sites -PCEC Student Services Office (P) -PCEC Schools (P) -PCEC Dean (P2)</p>

## Action Area 1: Access and Equity – Recruitment and Retention (faculty, staff, students)

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	<p>Formalize support to guidance counselors who can provide support to students aspiring to GVSU</p> <p>Develop pipeline programs for middle school students to cultivate interest/enhance preparation for specific disciplines.</p>	<p><i>Continue to enhance &amp; expand our extensive pipeline activities</i></p> <p><i>Regularly review &amp; evaluate efficacy of each pipeline program</i></p> <p>2008/09 Baseline: Number of programs = ? Number of student participants = 1,300 2009 STEPS Study results indicate? Mathcounts scholarship redemptions = ? FIRST Scholarship Applicants = 1 + direct admits, Awards = 1</p>	<p>campus visits) (O,E)</p> <p><b>Pipeline activities (O):</b>                      -Sibley Elementary partnership                      - STEPS Camp                      - Get-with-the-program Camp                      - MathCounts competition (regional and state) &amp; scholarship                      - Science Olympiad competition                      -FIRST Robotics competition, Lego League and scholarship                      -AIME project (SME funded effort to enhance K-16, GRCC, GVSU planning &amp; articulation)                      -GRAPCEP (GRPS) STEM Consortium</p>	<p>Long term STEPS Study</p> <p>Student use of MathCounts scholarship</p> <p>Number of applicants and awards of FIRST scholarship</p>	<p>PCEC Student Services Office (P)</p> <p>PCEC Dean (P2)</p> <p>PCEC Schools (P2)</p>

## Action Area 1: Access and Equity – Recruitment and Retention (faculty, staff, students)

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
		Renewals = 3 Note: 1 FIRST award each year 2006-2009. All students still on track in engineering.	support & involvement including curriculum and teacher development, curriculum involvement and support, etc. -HS Internship component to NSF Nano-tech grant - MS and HS Visitation Program - Engineering Projects Days - A World in Motion - Electrathon		
Develop plan for recruitment/admission process for graduate students	Identify financial resources to support the effort  Facilitate recruitment of under-represented minority representation required for federal grants across the institution	<b><i>Expand graduate enrollment to a level that populates existing offerings and supports expanding offerings to meet student and community need</i></b>  Baseline: Fall 2009 MS enrollment = 127  2008/09 grad cr-hr = 1,550	Expand GA positions (O)  Graduate scholarship program (O)  Faculty alma mater program (O)  Updated web and print materials (O)	Graduate enrollment data - number of majors - credit hour production	PCEC Dean (P)  PCEC Schools (P2)    PCEC Schools (P)

**Action Area 1: Access and Equity – Recruitment and Retention (faculty, staff, students)**

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
		2008/09 #GAs = 25 semester appointments Fall 2009 grad schol. = 1 (4 apps, 3 approved, 1 redeemed)	<p>Programmatic additions that leverage existing offerings</p> <ul style="list-style-type: none"> <li>- courses</li> <li>- certificates</li> <li>- emphases</li> <li>- new PSM? (N)</li> </ul> <p>Partner with internship employers to increase awareness of our opportunities (E)</p>		PCEC Dean (P2)

## Action Area 1: Access and Equity – Policy/Administrative Initiatives

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
Reconfigure Intercultural Advisory Council (IAC) to better support the work of the Division of Inclusion and Equity	Establish a university committee to advise Division of Inclusion and Equity (University Inclusive Excellence Team – possible new name) Solicit participation of a representative from each college, administrative division, undergrad and grad student representatives	<i>Support Division of Inclusion &amp; Equity efforts and maximize communication with PCEC</i>	Identify and appoint representative to UIET when established (N)	Feedback from OIE	Division of Inclusion & Equity (P)  PCEC Dean (P2)
Improve quality of research from a diversity/inclusion perspective	Develop a plan to diversify human research subjects	<i>Improve quality of research from a diversity/inclusion perspective, particularly in providing improved data for longitudinal studies</i> Baseline: 2008/09 publications with this element = ?	Created and filled Sebastian Endowed Chair who assists with this effort (O)  Coordinate with appropriate units across GVSU (O)  Identify potential students for collaboration through under-represented faculty mentors.	Annual review of research reports and publications	Graduate Studies & Grants Admin. (P)  Sebastian Chair (P2)

## Action Area 2: Campus Climate

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
Conduct climate study of faculty, staff, and students utilizing internal and external consultation	<p>Promote broad campus consultation in process due to mixed/negative perceptions from campus community regarding validity and methods utilized for 2005 climate study</p> <p>Include a focus on issues of collegiality</p>	<p><i>Improve the climate within PCEC with regard to respect for all and improved collegiality</i></p> <p>Baseline – see last climate study results</p>	<p>Encourage participation of faculty and staff within PCEC.</p> <p>Ask faculty and staff to encourage participation by students.</p> <p>Build upon results of survey to improve climate within PCEC</p> <p>Gather specific recommendations for projects within our Schools based on the climate survey. (N)</p>	Results of university climate studies	<p>Division of Inclusion &amp; Equity (P)</p> <p>PCEC Dean (P2)</p> <p>PCEC Schools (P2)</p> <p>PCEC Student Services Office (P2)</p>
Design and implement schedule of “Opportunities to Dialogue about Race” and other inclusion related topics such as disability, class, religion, sexual orientation, etc.	<p>Monthly breakfast dialogues on inclusion topics</p> <p>Consider small faculty and/or staff discussion groups</p>	<p><i>Leverage GVSU efforts to expand these dialogues</i></p> <p>Baseline = ?</p>	<p>Encourage faculty, staff, and students to participate in these opportunities</p> <p>Integrate topics as appropriate to course content (O)</p>	Annual review of faculty, staff, and student participation	<p>Division of Inclusion &amp; Equity (P)</p> <p>PCEC Dean (P2)</p> <p>PCEC Schools (P2)</p>

### Action Area 3: Diversity in Curriculum/Co-curriculum

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
Reward and value course content that integrates culturally diverse perspectives (race, class, disability, sexual orientation, religion, etc.) where appropriate	Develop local community connections with diverse cultural groups	<i>Provide students, faculty, and staff with opportunities to experience the integration of culturally diverse perspectives, particularly as they pertain to technology and society</i>  Baseline: 2008/09 # organizations involved	Involvement with west Side Community organizations such as The Other Way Ministries and Westtown Jubilee Housing (O)  Involvement with west Michigan professional chapter of NSBE (O)  Other regional organizations appear to fit well with PCEC – SWAN, etc?	Annual review of course offerings, co-curricular activities, and participation	UCC/College Curriculum Committee (P)  School on EGR (P)  School of EGR (P)  ????
Reward and value inclusive pedagogy	Create course-based and co-curricular opportunities to teach about the impact of socio-economic disparity  Create opportunities for students to be educated about working in urban communities	Baseline: 2008/09 # courses and students in these courses and/or activities = ?	Development and offering of Urban Sustainability course (O)  Provide diverse service learning opportunities via course offerings including EGR 468 – Heat Transfer (housing projects) and CS 463 –		School of EGR (P)  PCEC Schools (P)

			IS Project (not-for-		
<b>Action Area 3: Diversity in Curriculum/Co-curriculum</b>					
<b>University Goal</b>	<b>University Strategy</b>	<b>PCEC Objectives</b>	<b>PCEC Implementation Initiatives (ongoing, new, expand?)</b>	<b>Measures</b>	<b>Accountable Unit(s) P=Primary P2=PCEC Primary Partner</b>
			<p>profit service projects) (O)</p> <p>Provide diverse service learning opportunities via student organizations such as ASME Bikes for Kids, etc. (O, E)</p> <p>Conduct capstone projects in diverse environments when ever possible (O/N?)</p>		PCEC Schools (P)
Develop/implement diversity/inclusion campus-wide training/education workshops/programs	New Director of Intercultural Training to collaborate with partners	<p><i>Utilize university wide programs to enhance PCEC climate and effectiveness</i></p> <p>Baseline: # Trained Advocates for 2008/09 = 6</p>	<p>Utilize Inclusion Advocate program (O)</p> <p>Initiate Personnel Process Advocate program (N)</p>	Annual review of participation	<p>Division of Inclusion &amp; Equity (P)</p> <p>PCEC Dean (P2)</p>
Co-sponsor Inclusion and Equity related conferences/programs across campus	Raise awareness and understanding of inclusion issues	<i>Assist in making equity related activities available to faculty, staff and students in PCEC and across the university</i>	Co-sponsorship of various programs including: Hispanic Heritage Month, People of Color Network, OMA	Annual review of sponsorships and prioritization of next year sponsorships	<p>Division of Inclusion &amp; Equity (P)</p> <p>PCEC Dean (P2)</p>

		Baseline: 2008/09 – 3 programs supported	Programs, Women's Center (O)		

### Action Area 4: Organizational Learning - Internal

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
<p>Training and organizational development</p> <p>Provide consultation and intervention to departments/units to ameliorate workplace conflict</p>	<p>Provide training on a variety of inclusion related topics including effective interviewing, unconscious bias, cultural competence*, ADA, Proposition 2, etc.</p> <p>Utilize professional theatre groups and “train the trainer” concept</p> <p>Review/revise Diversity Workshops called “On Demand”</p> <p>Enhance training for multicultural assistants and academic advisors</p>	<p><i>Provide enhanced training for all faculty and staff to improve topics identified in associated University Strategy</i></p> <p>Baseline:</p> <p>2008/09 - # events for which we provided instructors = 2</p> <p>2008/09 - # faculty and staff participation = 5</p>	<p>Use of NSF Advance project tools including STRIDE training and U/M CRLT Players (O)</p> <p>Support STRIDE Committee via faculty and staff participation including as instructors (O)</p>	<p>Annual review of offerings and faculty and staff participation</p> <p>Results of university climate studies</p>	<p>Division of Inclusion &amp; Equity (P)</p> <p>PCEC Dean (P2)</p> <p>PCEC Schools (P2)</p> <p>PCEC Prof Dev Comm (P2)</p>

### Action Area 4: Organizational Learning – Community Outreach

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
Facilitate and sustain an effective university-wide mechanism for establishing partnerships and collaborations with Grand Rapids Public Schools - do the same for other districts with diverse populations (i.e. Muskegon, Holland, etc.)	<p>Superintendent of GRPS's: areas of interest</p> <p>Centers of innovation</p> <p>Mentoring/tutoring programs for high school students</p> <p>High school reform/opportunities for students to accelerate completion of high school/dual enrollment programs in senior year</p> <p>Cultural competence training for GRPS teachers</p> <p>Helping teachers work with affluence</p> <p>Study teachers' fear of students and the impact of that fear on their expectations of students</p> <p>Teach pedagogy of</p>	<p><i>Enhance the preparation of a diverse population of students and provide opportunities for professional careers, particularly in engineering and computing.</i></p> <p><i>Expand the pipeline of talent for the engineering and computing professions.</i></p> <p>2008/09 Baseline: Number of programs = ? Number of student participants = 1,300 2009 STEPS Study results indicate? MathCounts scholarship redemptions = 1 FIRST Scholarship Applicants = 1 + direct admits, Awards = 1 Renewals = 3</p>	<p>Pipeline Activities</p> <ul style="list-style-type: none"> <li>- STEPS Camp</li> <li>- MathCounts competition (regional and state) &amp; scholarship</li> <li>- Science Olympiad competition</li> <li>-FIRST Robotics competition and scholarship</li> <li>-AIME project (SME funded effort to enhance K-16, GRCC, GVSU planning &amp; articulation)</li> <li>- MS and HS Visitation Program</li> <li>- Engineering Projects Days</li> </ul>	<p>Annual review of activities, participation, and mid-long term impact (where feasible, i.e. STEPS, GRAPCEP, etc. data)</p>	<p>COE (P)</p> <p>PCEC Student Services (P)</p> <p>School of CIS (P)</p> <p>School of EGR (P)</p>

## Action Area 4: Organizational Learning – Community Outreach

University Goal	University Strategy	PCEC Objectives	PCEC Implementation Initiatives (ongoing, new, expand?)	Measures	Accountable Unit(s) P=Primary P2=PCEC Primary Partner
	<p>creating a culture of optimism</p> <p>Create/prepare pool of teachers who <b>want</b> to work in urban schools</p>		<p>- A World In Motion</p> <p>- Get-with-the-program Camp</p> <p>-Sibley Elementary partnership</p> <p>-GRAPCEP (GRPS) STEM Consortium support &amp; involvement including curriculum and teacher development, curriculum involvement and support, etc.</p> <p>-HS Internship component to NSF Nano-tech grant (O)</p>		
Develop and nurture key partnerships and relationships with community entities doing (or interested in doing) similar inclusion work	Maintain active membership in Grand Rapids Chamber of Commerce Cultural Competency Council Institute for Healing Racism	<p><b><i>Leverage the resources of GVSU and the community groups to mutual benefit and for greater impact</i></b></p> <p>Baseline:</p> <p>2008/09 - # organizations</p>	<p>Involvement with The Other Way Ministries (O)</p> <p>Involvement with Westtown Jubilee Housing (O)</p>	Annual review of partnerships, participation, and feedback	<p>Division of Inclusion &amp; Equity (P)</p> <p>School of EGR (P)</p>

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	<p>Partners for a Racism Free Community, etc.</p> <p>Create a list of organizations outside of campus that we as an institution can/should support</p>	and engagements = 10	<p>Involvement with many NPOs via the IS Capstone Project course (O)</p> <p>Other organizations to be engaged? - SWAN</p>		<p>School of EGR (P)</p> <p>School of CIS (P)</p>
Enhance faculty, staff, student involvement in TRIO and Upward Bound Programs	Identify and publicize volunteer opportunities	<p><b><i>Leverage these programs to expand the pipeline for students interested in engineering and computing</i></b></p> <p><b><i>Expand opportunities for collaborative student/faculty scholarship</i></b></p> <p>2008/09 Baseline:</p> <ul style="list-style-type: none"> <li>- 1 McNair Scholar mentorship</li> <li>- # TRIO tours, etc. = 2</li> </ul> <p>Other participation?</p>	<p>Publicize opportunities among faculty, staff, and students</p> <p>Create a mechanism for faculty to use outreach instruction and seminars targeted at under-represented high-school students as part of their workload.</p>	Annual review of participation and feedback	<p>TRIO/Upward Bound (P)</p> <p>PCEC Dean (P2)</p> <p>PCEC Schools (P2)</p>

