



# Henry Ford Community College

## Technology Investment Fund

### Project Funding Request

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HFCC

VICE PRESIDENT/CONTROLLER

This application form with original signatures must be received by the Vice President/Controller's office by 4:00 p.m. on either **the first Friday after Labor Day** (Fall semester) or **the third Friday in January** (Winter semester) in order to be eligible for funding. Applications will only be accepted on this form. Applications must include an Executive Summary that will be shared with the Campus Community. (**Attach additional sheets for any section needed.**)

<b>Date of Application:</b> January 21, 2011	<b>Project Type:</b> [ X ] New [ ] Upgrade/Expansion	
<b>Project Director:</b> Kim Schopmeyer, Meena Sharma, and Elaine Louisell <b>Department/Division:</b> Social Science	<b>How many students will directly benefit from the project?</b> Approximately 400-450 annually	<b>Total TIF Funds Requested:</b> \$26,431

### Problem Statement

**Define the problem/idea.** (What do you want to do? Why?)

The Social Science Division is developing an innovative classroom design that will foster high levels of collaboration and active learning. This classroom will provide in an environment that develops computer-based research skills, presentation skills, information- and computer-literacy, and various applications in the social science.

The proposed classroom will be installed in L-317. The TIF request includes funds for furniture, installation and some technology. Additional funding for construction and other technology will come from the college capital improvement budget and the Social Science Division student Technology Fee budget.

The classroom is to be outfitted with the following:

- Instructor work station, instructor chair and storage.
- 9 – 2-student built-in carrels for computer/monitor
- 18 stools for carrels
- 22 Node chair/desk combinations w/casters
- 2 – 72-inch flip-top tables for student collaboration
- 8 – chairs for flip-top tables
- 3 – Dry Erase Marker Boards, wall-mounted
- 1 – package of 5 large Huddleboards (2-sided markerboard, 32" x 42")
- 1 – package of 5 small Huddleboards (2-sided markerboard, 23" x 42")
- Wall-mounted 96" rails for the Huddleboards
- 1 – projector screen
- 1 – LED TV unit-60"-65" inch and wall-mounting installation
- Delivery and Installation

In this proposal, the Social Science Division is responding to the need to integrate technology, learner-centered teaching strategies, and opportunities for collaborative learning throughout the curriculum in higher education (Ertmer, 2005; Parker, 1997). Implementing learning strategies through innovative classroom designs creates a setting in which students go beyond a lecture/discussion format. The proposed classroom incorporates learning strategies through collaboration and application that foster essential skills necessary in all educational and workplace environments, as well as course content.

This approach reflects new approaches to education that seek to integrate course content with the development of essential skills, such as teamwork and collaboration; communication skills, including reading, writing and speaking and presenting; applying information in new settings; utilizing computer and information technology that allow students to locate, interpret, manipulate, analyze, and present data; and using analytical and

critical thinking skills. Learning strategies that combine learning course content with the development of essential skills not only lead to a broader range of knowledge and skill, but also promote higher levels of engagement and subject matter retention (Farmer 1988, Chickering and Gamson 1987, Weimer 2002, Gaston 2010, Hart Research Associates 2007, Kuh 2008).

The design of this classroom is intended to facilitate a range of learning strategies. Students can easily shift from small group discussion to two-student teams working collaboratively on the computer to obtain information or prepare presentations, then move again to a whole-class arrangement for presentations and discussion. The diversity of educational strategies foster higher engagement resulting in enhanced learning, while integrating and developing a much broader range of skills and knowledge. The opportunities to use and apply computer and information technology can be incorporated into nearly every class session because of the flexibility of the class design.

The use of Huddleboards also promotes collaborative learning, as students and the instructor work together to develop ideas, then present their work on the Huddleboards, a document camera, or through presentation software on screens. Since studies show that active and collaborative learning methods increases both retention of course material and social connections, these techniques may result in greater course attendance, persistence and retention.

Examples of specific usage of requested technology include:

- Students will conduct effective Internet searches to obtain information and data related to topics being studied in the course syllabus. This promotes information literacy and fosters skills in evaluating the appropriateness of data.
- Students will utilize basic analytical software, such as spreadsheet or other tools that will develop skills in social science research methods. For example, students can download Census Bureau data to examine changes in the Detroit metro area.
- Students will compile information, based on their Internet research, and create presentations to share with others in the class.
- Students will work in pairs or small groups to complete test questions linked to learning objectives. Higher-order learning objectives can be addressed in collaborative settings and push students to analyze more complex questions.
- Students can use online study tools available through textbook publisher websites. These can be used for practice test questions to help students prepare for high-stakes assessments later on.
- Using systems for audio/ visual communication, students can interact with students at other colleges in other parts of the US or in other countries. Students can collaborate with their counterparts to develop research projects to compare different cultures, family, schools, health and medicine, or employment and share presentations in both locations.
- Students will use the room as a gathering place for social science clubs such as Psi Beta to conduct club business, listen to guest speakers, view media, and collaborate with others on research projects.
- Students will be able to practice PowerPoint and other technology enhanced presentations, hold Pecha Kucha events, and explore virtual worlds. An example of this is the virtual rat lab that is designed to help psychology students learn elementary principles of behavior.
- Students and the instructor will collaboratively develop solutions and ideas, document them on a class viewable medium and display them to the class. Since studies show that active learning increases retention of content, the use of these tools is anticipated to increase retention of content.
- The proposed classroom will have movable node chairs that allow students to easily reconfigure themselves into peer-editing groups, study groups, etc.



	<p>Examples of specific usage of requested technology that facilitates collegial activities:</p> <ul style="list-style-type: none"> <li>• Instructors can use the classroom as a place to review new media and decide how to best incorporate unfamiliar technology into instruction.</li> <li>• Instructors can teach one another how to create Pecha Kucha events open to all social science students is one example of how instructors can make use of the room.</li> <li>• Vendors can present new course delivery systems and other software to groups of social science faculty.</li> <li>• Faculty may be able to use alternative scheduling to achieve learning objectives that require longer class sessions.</li> <li>• Faculty may be able to use the classroom as a proctored testing facility on off days such as Fridays.</li> <li>• The proposed classroom will provide the technology and space needed for Division colloquia where teachers can share their online courses and receive constructive suggestions from colleagues.</li> </ul> <p><b>Problem/Idea</b> Currently, the Social Science Division is the only division on campus that does not have computer classroom in which students can directly use instructional technology. Like other Social Science classrooms, L-317 as a traditional classroom. This design does not easily lend itself to best practice teaching strategies such as collaborative group work, horseshoe seating configuration, and ready access to computers. Design often dictates practice. Traditional classroom design too often puts the focus on the teacher instead of the learners. The current space is small. In addition, outdated technology does not allow for the use of simulations, video games or the exploration of virtual worlds—all of which have been shown to enhance student learning and motivation. (Davis, 2009).</p> <p><b>Solution: What do you want to do and why?</b> Our redesign request reverses this tradition by emphasizing learner needs and preferences. In addition, our classroom design allows for frequent stimulus changes necessary to maintain learner attention. Learners will be able to quickly transition from traditional lecture, to small groups using Huddleboards, to dyads, to computers, to multimedia, to seminar seating, and back to lecture. Consequently, transition time will be minimalized and time on task will be maximized. The proposed classroom will easily allow us to incorporate active learning approaches in our teaching. Furthermore, the room will be expanded by converting hallway and office space into the new classroom.</p>
<p align="center"><b>Evidence for Project Validity</b> (What is the current situation?)</p>	
<p><b>What resources do you have/use now?</b></p>	<p>L-317 is a traditional classroom with rectangular tables arranged in rows. All students face the instructor who is at the front of the room. This room is currently equipped with an instructor computer workstation, data projector, VCR/DVD player and visualizer/document camera (Elmo).</p>
<p><b>Why can't you use your existing resources to do this project?</b></p>	<p>The current traditional lecture-based classroom has an extremely simple and inflexible design, which severely limits options for learning. The purpose of this dated setup is for the instructor to take charge of planning, managing and guiding all the classroom activities as well as presenting the subject matter. This design does not support successful collaborative learning. When students are asked to rearrange tables or move their chairs to form groups, it is awkward and becomes very difficult for students to see the instructor or materials being presented on the sole overhead projector located at the front of the room.</p> <p>Equipped with inflexible furniture, a blackboard, overhead projector, a VHS/DVD player</p>



	<p>and a computer with Internet access at the instructor station, this classroom is quite limited when it comes to opportunities for teaching and learning by integrating learning technology. As new technologies are now playing an increasingly important role in all aspects of daily and academic life, traditional “low-tech” equipment can hardly serve current and future educational challenges. A more sophisticated, technology-enhanced classroom will provide for a more complex structure, allowing innovative types of learning that place students and their learning activities in the forefront. This learning and teaching environment will facilitate learning and teaching activities and can assist students in attaining their learning goals.</p> <p>The proposed classroom has been designed to serve multiple purposes. The creation of computer workstations along the perimeter of a section of the room allows students to work on computers in pairs that encourage collaborative learning. A projector at the front of the room and a large flat screen television located toward the back of the room will allow students to view lecture material from various angles in the room. The traditional table and chair format will be eliminated and replaced by node chairs that have wheels and fold away tables for students to quickly rearrange themselves in various configurations (traditional lecture, small group, pairs, seminar seating) when on the main area of the classroom, this creating the ultimate flexibility in a classroom.</p>
<p><b>What evidence do you have that this project will be successful?</b> (Cite specific information.)</p> <ul style="list-style-type: none"> <li>• Current research</li> <li>• Examples from other schools or teachers</li> <li>• Letters of support from experts in the field</li> <li>• Your own past experience.</li> </ul>	<p>Both classic and current research support the proposed project goals associated with a redesign of L-317. However, this body of knowledge was not available when the Walter Reuther Liberal Arts Building was planned and constructed. In those days designers assumed teachers would be lecturing to their students. Chickering and Gamson (1987) challenged this assumption in their seminal paper on undergraduate education. This project supports each of Chickering and Gamson’s seven principles for good practice. As described herein, the redesign especially reinforces the concepts of active and collaborative learning. Specific validation can be found in the following sources:</p> <ol style="list-style-type: none"> <li>1. Aronson, E., Stephan, C, Skies, J, Blaney, N., &amp; Snapp, M. (1978). <i>The jigsaw classroom</i>. Beverly Hills, CA: Sage.</li> <li>2. Britter, G., and Legacy, J. (2007) <i>Using Technology in the Classroom</i>. Chicago, IL: Allyn &amp; Bacon.</li> <li>3. Chickering, A. W. &amp; Ehrmann, S. C. (1996). Implementing the seven principles: Technology as lever. <i>AAHE Bulletin</i>, 49(2), 3-6.</li> <li>4. Chickering, A.W. &amp; Gamson, Z.F. (1987). Seven principles for good practice in undergraduate education, <i>Wingspread Journal</i> 9(2), special insert.</li> <li>5. Cohen, E.G. (1986). <i>Designing group work: Strategies for the heterogeneous classroom</i>. New York: Teachers College Press.</li> <li>6. Community College Survey of Student Engagement (2011) [Online] Available at: <a href="http://www.ccsse.org/survey/survey.cfm">http://www.ccsse.org/survey/survey.cfm</a>.</li> <li>7. Ertmer, P. A. (2005). Teacher Pedagogical Beliefs: The Final Frontier in Our Quest for Technology Integration? <i>Educational Technology Research and Development</i> Vol. 53, No. 4, 2005, pp. 25–39</li> <li>8. Farmer, D.W. (1988). Enhancing student learning: Emphasizing essential competencies in academic programs. Wilkes-Barre, PA: King’s College.</li> <li>9. Gaston, P. (2010). <i>General Education and Liberal Learning: Principles of Effective Practice</i>. Washington, DC: American Association of Colleges and Universities.</li> <li>10. Green, T. (2000). Responding and sharing: Techniques for energizing classroom discussions. <i>The Clearing House</i> 73, 331-334.</li> <li>11. Gross Davis, B. (2009). <i>Tools for teaching</i> (2<sup>nd</sup> ed.). San Francisco: Jossey-Bass.</li> <li>12. Hart Research Associates. (2007). <i>How should colleges prepare students to succeed in today’s global economy</i>. Washington, DC: Hart Research Associates</li> <li>13. Jenkins, H., Purushotma, R., Clinton, K., Weigel, M. &amp; Robison, A. (2006). <i>Confronting the challenges of participatory culture: Media education for the 21st century</i>. Chicago, IL: The MacArthur Foundation.</li> <li>14. Kuh, G. (2008). High-impact educational practices: What they are, who has access</li> </ol>

to them, and why they matter. Washington, DC: American Association of Colleges and Universities.

15. Johnson, D.W. & Johnson, R.T. (1989). *Cooperation and competition: Theory and research*. Edina, MN: Interaction Book Company.
16. Lyman, F. (1981). The responsive classroom discussion: The inclusion of all students. *Mainstreaming Digest*. University of Maryland, College Park, MD.
17. More than just fun and games? Applied Clinical Trials (Brady, 2004). [Online] at: <http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=131503>
18. Palloff, R. M., & Pratt, K. (2001). *Lessons From the Cyberspace Classroom*. San Francisco: Jossey-Bass.
19. PechaKucha 20x20 [Online] Available at: <http://www.pecha-kucha.org/what>.
20. Svinicki, M.S. & McKeachie, W.J. (2011). *Teaching tips: Strategies, research, and theory for college and university teachers* (13<sup>th</sup> ed.). Belmont, CA: Wadsworth.
21. Their Space: Education for a digital generation (Green & Hannon, 2007). [Online] Available at: <http://www.demos.co.uk/files/Their%20space%20-%20web.pdf>
22. Think-Pair-Share (Lyman, 1981). [Online] Available at: <http://www.classroom20.com/profiles/blogs/thinkpairshare-lyman-1981-an>.
23. Weimer, M. (2002). *Learning Centered Teaching: Five Keys Changes to Practice*. San Francisco: Jossey-Bass

Past experience:

In 1998-2000, an Honors section of SOC 151-Contemporary Social Problems was designed around social science research, taught by Kim Schopmeyer. Students collaborated in the development of a survey on attitudes toward social problems, conducted all data gathering, designed the code book, and entered the data, much of which was accomplished in a computer classroom. Each student then analyzed a segment of the data, wrote a report and gave presentations to the class. The class generated high levels of engagement and active, experiential learning.



## Relevance to Technology Investment Committee Guidelines

*(Address only those that apply.)*

<b>INNOVATION:</b>	Computer stations, white boards and Huddleboards will be allow us to be more innovative in our teaching. We are using technology to support collaborative learning in a way that is new to the instructional community.
Is the proposal innovative to the field of Instructional Technology?	
Is the proposal innovative to HFCC?	<p>This project is similar to the Math and the Business and Economics Divisions' Collaborative Learning Classroom projects funded by TIF. However, the proposed classroom will enable instructors to use the room for multiples purposes. Computer stations will allow students to conduct research, complete activities, prepare presentations, and take tests. The arrangement of the room allows for students to easily rearrange themselves as instructed in various configurations (traditional lecture, small group, pairs, seminar seating) when on the main area of the classroom, thus creating the ultimate flexibility in a classroom.</p> <p>Overall, the classroom will facilitate a more interactive and enriching environment for students.</p>
Is the proposal innovative to the specific discipline?	Students in Social Science need collaboration in their classrooms in order to excel in the discipline. It is apparent that in this day and age teaching from a textbook is less effective than newer, innovative methods and old-fashioned. Lectures and class activities become more exciting for both instructors and students in a collaborative environment that is technologically savvy. Technology opens the door to learning skills and content in ways impossible in the traditional classroom. Of course, technology integration varies depending upon field of study, applicability to students, and faculty initiative, but in the social sciences, the proposed classroom can extend these learning opportunities for all students. It is crucial as social science educators to ensure that we are on the front-end of the wave.
<b>NEED:</b>	
Is the proposal essential for the instructional design?	<p>The present methods for collaboration among peers in traditional classrooms are inefficient and less effective. Valuable class time is spent rearranging furniture both before and after group activities. Additionally, current classroom furniture (even when rearranged) inhibits communication and visibility of course materials by students and instructor. Node chairs, equipped with wheels and fold-away tablets, will help to alleviate these issues since students can quickly move these chairs around into various configurations without having to move tables. A projector at the front of the room and a large flat screen television at the back will help students to see material presented at various points in the room.</p> <p>The computer stations in the classroom will allow instructors to effectively take full advantage of technology by introducing students to activities in which skills and content are taught more actively and meaningfully. Students will see how the disciplines such as sociology and psychology apply to their everyday lives more clearly. For example, faculty in psychology and sociology can used podcasts and integrated publishing software to supplement reading material and case studies. In sociology, current event activities actively engage students in the retrieval, reading and interpretation of current events from various online news sources. Students are divided into small groups to search for newspaper articles, letters, photographs, charts, graphs and maps that provide information about a specific topic. Computer stations will help students to prepare presentations, conduct research, and take tests, students can also access state-of-the- art textbook supplements like MySocLab, MyFamilyLab, or MyPsychLab. These labs provide access to a wealth of resources geared to meet the individual learning needs of every student. There are many activities that students can be assigned in class such as video and audio based activities,</p>



	<p>interactive flashcards, games, practice tests and exams and research support. These are just a few examples of how the social sciences can utilize web-based tools to promote collaborative and interactive learning while taking their learning experiences to the next level.</p> <p>The proposal enables the facilitation of collaborative, group activities and current technology in social science classes with the goal of enhancing learning.</p>
<b>Does it create new programs or courses with the potential for increased student enrollment?</b>	<p>Many college students today are visual learners, reading more websites, magazines, books, blogs, tweets and emails than ever before. They learn to absorb information differently, thriving in an environment saturated in information technology, where fast delivery and visually rich presentation are expected (Bitter and Legacy, 2007). By appreciating that the students filling their classroom chairs have a different perspective on the world, instructors need to be in tune with students so that we are able to experiment with new ways to connect with students through these technologies. Moreover, the research is supporting this work, showing that "multimedia education improves both comprehension of the lesson material and students' interest in the lesson topic" (Brady, 2004). In addition, the proposed classroom can be useful for hybrid classes. Many social science instructors who are experimenting with hybrid and the ability to have students take tests on the computers in the classroom may be motivated by the availability of the proposed classroom. The creation of more hybrid classes as an alternative to full online courses has potential for both new course development and enrolment.</p>
<b>Is it necessary to remain competitive with post-secondary institutions?</b>	<p>This project is necessary to develop a classroom environment that will prepare students to work with technology used in other institutions of higher learning. Many colleges and universities are already adopting technological advances that represent the future of education delivery. The proposed classroom will ensure today's college students are prepared for the challenges of tomorrow's workplace.</p>
<b>Does it provide skills that are transferable to the workplace?</b>	<p>The proposed classroom will provide students with experiences in a technology-rich learning environment that will facilitate their use of technology for learning and their development of skills used to incorporate technology throughout their education and daily lives.</p> <p>There is a growing body of evidence that technology integration positively affects student achievement and academic performance. The Center for Applied Research in Educational Technology (CARET) found that, when used in collaborative learning methods and leadership that is aimed at improving the school through technology planning, technology impacts achievement in content area learning, promotes higher-order thinking and problem solving skills, and prepares students for the workforce.</p> <p>The requested technology will enable instructors to project at multiple points in the room and students to sit in various configurations. Groups will be able to record work on both computers and Huddleboards and present their work to the class. The ability to adapt by working in pairs or groups, the ability to listen and take notes in lecture and the importance of participating in a seminar are all crucial skills for students especially in preparation for the workplace. Various teaching styles and learning techniques are all possible in the proposed flexible classroom.</p>
<b>Does it prepare students for transfer to upper-level curriculum?</b>	<p>The advances in the proposed classroom will provide our students with the tools they need to succeed in education, the workplace and in general, "the real world." We are living in an age of information overload with the expectation that students will learn high-level skills such as how to access, evaluate, analyze, and synthesize vast quantities of information before moving on from our courses. Teaching students these skills coupled with the skills needed to collaborate with others will help pave the path to success in upper-level curriculum.</p>



## Relevance to Technology Investment Committee Guidelines (continued)

(Address only those that apply.)

<p><b>Does it keep the course or program current in the related technology?</b></p>	<p>This proposal will enable social science instructors to integrate an array of teaching supplements in the classroom. The ability to use technology to deliver the most up to date information is crucial in keeping students informed and aware of the activities occurring in the world around them. For example, students can watch live streaming of news as it unfolds on the web, watch videos, conduct research, interpret graphs and tables, or create their own blogs about specific issues in their discipline. There is an abundance of opportunity to keep the material as current as possible with the sufficient resources.</p>
<p><b>NATURE OF PROPOSAL:</b></p> <p><b>Is the proposal a component of curricular revision?</b></p>	<p>In order to take full advantage of the furniture and technology in the proposed room, instructors may find that revising former methods of teaching is necessary. The incorporation of a more-interactive learning environment and updated technology will allow social science instructors to address the changing needs of current students and align HFCC courses with more up to date methods of delivery.</p>
<p><b>Is it the next logical step in the evolution of the course/curriculum?</b></p>	<p>The proposed classroom is vital to engage in interactive teaching styles and integrate technology throughout our classes.</p>
<p><b>Will it help attract students to HFCC?</b></p>	<p>The ability to redesign our room in multiple configurations provides ample opportunity for the instructors to utilize different teaching techniques. Moving from lecture to seminar format, small groups to dyads, or work at the computer stations can be achieved easily and will support diverse talents and learning preferences.</p> <p>The redesigned classroom may help students who struggle to pay attention in a traditional lecture type of classroom or students who are anxious when it comes speaking in class. Through greater interaction with their peers, students may experience greater academic support easing this anxiety. Research strongly supports the advantages of collaborative learning over competition and individualized learning. Compared to competitive or individual work, collaboration leads to higher group and individual achievement, higher-quality reasoning strategies, more frequent transfer of these from the group to individual members, more meta-cognition, and more new ideas and solutions to problems (Cohen, 1986). Students in these types of classrooms tend to be more intrinsically motivated, intellectually curious, caring of others, and psychologically healthy (Johnson &amp; Johnson, 1989).</p>
<p><b>Will it support HFCC community outreach/public relations activities?</b></p>	<p>The proposed classroom could serve many functions. When it is not used as a classroom, the room can be used as a gathering place for social science division meetings, or for certain department to hold faculty meetings. The space would be an ideal meeting place for various social science clubs, to collaborate with others on research, and serve as a place for all social science students to view enrichment media and attend guest presentations. The room will also allow vendors to present new course delivery systems and other software to groups of social science faculty.</p>
<p><b>Will it support student retention activities at HFCC?</b></p>	<p>According to Community College Survey of Student Engagement research findings, "student learning, persistence, and attainment in college are strongly associated with student engagement. The more actively engaged they are with one another, other students, faculty, and with the subject matter they are studying, the more likely they are to persist in college." The proposed classroom will be technologically equipped to allow for exciting new ways for students to interact with the subject matter and with one another. It will serve as a comfortable hub—to host organized learning communities such as clubs that will increase the likelihood of keeping our students engaged.</p>



Will it become an integral part of the course, program or curriculum?	We fully anticipate that the proposed classroom will serves as a model for future classrooms for the Social Science Division.
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### Resources

<b>Where will the project hardware be installed?</b>	Room L-317 in the Liberal Arts Building.	
<b>Who will do the job?</b> • List the personnel • List their duties	Installation will be performed by HFCC employees and outside contractors.	
<b>Who will use the hardware?</b>	Students and instructors in this classroom will use the whiteboards, Huddleboards, document camera and the computer stations.	
<b>Who will conduct any necessary project-hardware training?</b>	Vendors of equipment and Instructional Technology technicians, as needed.	
<b>Who will handle any spring and summer semester duties related to hardware installation?</b>	Installation will be performed by HFCC employees and outside contractors. At any given time during the Spring and Summer semesters at least one of the Project Directors will be available.	
<b>Do you have commitment from your administration for personnel support?</b> <i>(Be specific, include documentation.)</i>	N/A	
<b>Is release time required to complete this project?</b>  <b>If yes, has it been approved at this time by your Associate Dean?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <input type="checkbox"/> Yes <input type="checkbox"/> No	<i>TIF does not fund release time. If you are requesting release time, it must be approved by the appropriate administrators prior to proposal submission.</i>

## Evaluation

(How will you know if it worked?)

<p><b>How will you demonstrate to the college that this was an effective use of funds?</b> <i>(How will you evaluate the goals listed as Expected Outcomes?)</i></p>	<p>I. Surveys and focus groups</p> <p>A. Student surveys: Formative and summative surveys will be administered to students enrolled in classes taught in the proposed classroom. The formative survey will be completed during midterm week and the summative survey will be completed during week 15. Formative results will be used to tweak classroom systems within each course; summative reviews will be used to make appropriate changes between semesters. Surveys will be administered electronically using computers in the proposed classroom. Student input will be anonymous and results will be shared.</p> <p>B. Student focus group: The project directors will review the survey results and conduct an in-depth focus group to explore issues that appear in their review. Appropriate corrective measures will then be taken.</p> <p>C. Faculty surveys: Electronic summative surveys will be sent to each social science faculty member assigned to teach in the proposed classroom.</p> <p>D. Faculty focus group: The project directors will review the survey results and conduct an in-depth focus group to explore issues that appear in their review. Appropriate corrective measures will then be taken.</p> <p>II. In-depth behavior change component of focus groups</p> <p>A. Student focus group: The project directors will also elicit information from student focus group participants regarding how the new technologies and new pedagogies changed their study behavior, attitudes, and thought processes about the subject matter they were studying.</p> <p>B. Faculty focus group: The project directors will also elicit information from faculty focus group participants regarding how the availability of new technologies and room reconfiguration possibilities changed their approach to preparation, course design, attitudes, and pedagogy.</p> <p>Written reports summarizing survey and focus group findings will be prepared and circulated to all members of the Social Science Division twice each year—once in February and again in June.</p>
<p><b>How will you determine the success or shortcomings of the project?</b></p>	<p>All the evidence cited above will be collected and analyzed by the project directors twice each academic year. Appropriate corrective measures will be discussed and implemented after each review. Formative evaluation will be used to catch problems within courses; summative evaluation results will drive corrective strategies between semesters. Continuous improvement across semesters is expected.</p>



**Budget**  
**(You must also include an itemized budget statement.)**

<b>What do you need to complete this project?</b> <i>(Be specific about equipment, software, and training.)</i>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Instructor work station and storage.</td><td style="text-align: right;">1,579.36</td></tr> <tr><td>Instructor chair</td><td style="text-align: right;">318.50</td></tr> <tr><td>9 – 2-student built-in carrels for computer/monitor</td><td style="text-align: right;">4,912.00</td></tr> <tr><td>22 - Node chair/desk combinations w/casters</td><td style="text-align: right;">6,715.94</td></tr> <tr><td>2 – 72-inch flip-top tables for student collaboration</td><td style="text-align: right;">1,680.00</td></tr> <tr><td>8 – chairs for flip-top tables</td><td style="text-align: right;">415.84</td></tr> <tr><td>18 stools for carrels</td><td style="text-align: right;">4,590.00</td></tr> <tr><td>3 – Dry Erase Marker Boards, wall-mounted</td><td style="text-align: right;">781.83</td></tr> <tr><td>1 – pkg of 5 large Huddleboards (2-sided markerboard, 32" x 42")</td><td style="text-align: right;">388.99</td></tr> <tr><td>2 – pkg of 5 small Huddleboards (2-sided markerboard, 23" x 42")</td><td style="text-align: right;">718.40</td></tr> <tr><td>Wall-mounted 96" rails for the Huddleboards</td><td style="text-align: right;">2,482.38</td></tr> <tr><td>1 – projector screen</td><td style="text-align: right;">200.00</td></tr> <tr><td>6 – ceiling-mounted speakers</td><td style="text-align: right;">542.00</td></tr> <tr><td>Delivery and Installation</td><td style="text-align: right;">1,606.27</td></tr> </table>	Instructor work station and storage.	1,579.36	Instructor chair	318.50	9 – 2-student built-in carrels for computer/monitor	4,912.00	22 - Node chair/desk combinations w/casters	6,715.94	2 – 72-inch flip-top tables for student collaboration	1,680.00	8 – chairs for flip-top tables	415.84	18 stools for carrels	4,590.00	3 – Dry Erase Marker Boards, wall-mounted	781.83	1 – pkg of 5 large Huddleboards (2-sided markerboard, 32" x 42")	388.99	2 – pkg of 5 small Huddleboards (2-sided markerboard, 23" x 42")	718.40	Wall-mounted 96" rails for the Huddleboards	2,482.38	1 – projector screen	200.00	6 – ceiling-mounted speakers	542.00	Delivery and Installation	1,606.27
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<b>What is the TOTAL COST?</b> <i>(You must attach an itemized cost analysis with this proposal.)</i>	<b>\$ 26,431.51</b>																												
<b>How recent is your quote?</b>	January 10, 2012																												
<b>Are changes to the college infrastructure necessary to support this project?</b>	<p>[ X ] Yes   [ ] No</p> <p><i>If "yes" provide an explanation from the Directors of Data &amp; Voice and Buildings &amp; Grounds, and from the Administrator in charge of the affected room(s).</i></p> <p>Data needs for the room have been identified by Sandro Silvestri. The room will require 10 data drops for 9 student computers and 1 instructor computer, at \$200 each, for a total of \$2,000. A 24-port switch will be needed for \$4,500.</p> <p>Electrical needs require wiring and connections for 10 computers, document camera, DVD unit and printer. Wall-mounted television, 1- data projector with speaker wiring, lighting with fluorescent units and can lights with dimmers, will also require wiring. Electrical modifications at \$20,000. HVAC modifications at \$750. Estimates from Tony Parker at \$20,000. Approved by Allen Gigliotti.</p> <p>Kim Schopmeyer, Associate Dean, Social Science Division approved.</p>																												
<b>What other monetary commitments exist?</b> <i>(Department/Division/ External) Please be specific; include documentation wherever possible.</i>	<table style="width: 100%; border-collapse: collapse;"> <tr><td colspan="2"><b>HFCC Capital Improvement budget</b></td></tr> <tr><td style="width: 80%;">Demolition</td><td style="text-align: right;">\$ 2,000.00</td></tr> <tr><td>Carpentry/Drywall</td><td style="text-align: right;">\$ 3,500.00</td></tr> <tr><td>Acoustic Ceiling Tile</td><td style="text-align: right;">\$ 2,000.00</td></tr> <tr><td>Carpet</td><td style="text-align: right;">\$ 3,600.00</td></tr> <tr><td>Painting</td><td style="text-align: right;">\$ 2,000.00</td></tr> <tr><td>HVAC</td><td style="text-align: right;">\$ 750.00</td></tr> <tr><td>Electrical (includes new lighting &amp; dimmers)</td><td style="text-align: right;">\$ 20,000.00</td></tr> <tr><td>24-bit switch</td><td style="text-align: right;">\$ 450.00</td></tr> <tr><td>Card Reader Door Lock</td><td style="text-align: right;">\$ 2,000.00</td></tr> <tr><td><b>Total</b></td><td style="text-align: right;"><b>\$36,300.00</b></td></tr> </table>	<b>HFCC Capital Improvement budget</b>		Demolition	\$ 2,000.00	Carpentry/Drywall	\$ 3,500.00	Acoustic Ceiling Tile	\$ 2,000.00	Carpet	\$ 3,600.00	Painting	\$ 2,000.00	HVAC	\$ 750.00	Electrical (includes new lighting & dimmers)	\$ 20,000.00	24-bit switch	\$ 450.00	Card Reader Door Lock	\$ 2,000.00	<b>Total</b>	<b>\$36,300.00</b>						
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<p><b>If other sources of funding are not available, why?</b></p> <ul style="list-style-type: none"> <li>• <b>Doesn't have the support?</b></li> <li>• <b>Not viewed as feasible?</b></li> <li>• <b>Not a priority?</b></li> <li>• <b>Other?</b></li> </ul>																					



## Strategic Plan

Include with your application a document that indicates the ways in which your project addresses the goals and objectives of the Henry Ford Community College Strategic Plan. Also, indicate how your project addresses your Division or Department plan. Be as specific as possible.

### Henry Ford Community College Strategic Plan 2009 - 2010

**Goal II, Objective D** – Create systems that encourage faculty to develop and share innovative approaches that enhance teaching and learning.

**Goal VI, Objective D** – Integrate appropriate multimedia technology into classrooms and laboratories in order to develop and distribute high quality instructional content.

**Goal VI, Objective E** – Continuously evaluate new and existing technologies and make enhancements that increase effectiveness.

This project will provide the Social Science Division with an innovative classroom design that will foster innovative teaching and learning strategies. The project also incorporates technologies in new ways to enhance learning in the social science, as well as computer literacy, information literacy and critical thinking skills. *This project will finally provide the Social Science Division with a resource that every other division at HFCC: a classroom in which students will have direct access to computers in the everyday activities in our classes.*

Among the essential elements of the HFCC Strategic Plan is a focus on enhancing 21<sup>st</sup> century technology and computer-based skills. By incorporating a range of computer and electronic technology, students will have opportunities to blend the learning of psychology, sociology, political science and other fields with the tools used by advanced students and practitioners in these areas. By utilizing these tools, students will be able to apply concepts and theories as social scientists do in their practice.

Using audio/video communication technology, students can interact with students in other states or countries. These interactions can help students learn how their counterparts in California, Canada or Mexico live, work, study and learn in new ways. By collaborating with students elsewhere, our students can discover comparisons and contrasts in their lives.

**If your proposal is Non-Instructional (Library Services, Learning Lab, Counseling, Placement Services), please skip this section and complete the information in the Non-Instructional section.**

## Instructional Proposals

*Complete this section if this is an Instructional Proposal, directly impacting student teaching and learning.*

### Expected Outcomes (Project Objectives)

**What is your current teaching method? How will this project fit into your current plan?**

Space limitations make it impossible to describe the teaching methods of every social science faculty member currently assigned to L-317. However, as stated previously, design typically dictates practice. The existing design promotes passive learning because the teacher is front and center and reconfiguration of seating is difficult at best. This static condition typically generates lecturing with some discussion.

The proposed redesigned classroom is dynamic; it promotes active and collaborative learning, two key components of Chickering and Gamson's (1987) classic *Seven Principles of Good Practice in Undergraduate Education*. HFCC and other progressive community colleges are rapidly moving away from a teacher-centered paradigm of education to a learner-centered model. We believe the proposed classroom will serve as an exemplar of HFCC's commitment to this paradigm shift.

**How will this improve student learning? (List specific goals.)**

A redesigned L-317 will improve student learning in the following ways:

1. It will promote discussion over lecture. The discussion method has been shown to be superior to lecture for the achievement of most learning goals. Discussion will occur between teacher and students and students and other students.
2. It will promote active learning over passive learning. The former has been demonstrated to be especially effective for the development of critical thinking skills.
3. It will promote collaboration by making it possible to quickly reconfigure the classroom seating arrangements into dyads and small groups. Students will benefit by listening to others' ideas and getting peer feedback on their own ideas. Moreover, collaboration in school teaches essential skills required in the modern workplace.
4. It will promote learning through frequent stimulus change. Novel stimuli demand attention; habituation occurs when stimuli do not change frequently. The proposed redesign will promote the development of dynamic learning plans that will include the use of the media and resources available in the room. Our goal is to encourage teachers to move away from lecture and embellish their learning plans with reconceived instructional designs. Sound instructional design always includes a feedback loop. We believe teachers will be stimulated to use feedback to morph their learning plans.
5. It will afford an opportunity for students to practice using state of art technology. For example, instead of assigning the traditional term paper, teachers can hold Pecha Kucha events where students present 20 PowerPoint images for 20 seconds each. Doing this well involves multiple skill sets. Pecha Kucha nights are being held all over the world. Why not at HFCC?
6. It will promote learning because students who get to know at least one teacher well are more likely to persist through graduation. The proposed redesign almost guarantees that students will get to know their teacher. Getting to know your teachers well is an advantage of attending an expensive liberal arts college. HFCC students who complete course work in the redesigned room will have a similar advantage.



## Instructional Proposals (continued)

<b>State how the project addresses the Seven Principles of Good Practice in Undergraduate Education.</b> <i>(Address only the relevant criteria.)</i>	
<b>Supports student-faculty contact</b>	The proposed classroom supports student-faculty contact by removing the numerous barriers that exist in L-317. The redesign will allow teachers to move freely between individual students, dyads working at computers, and small groups. Such freedom of movement sets the occasion for multiple interactions during each class session.
<b>Supports cooperation among students</b>	The proposed classroom supports cooperation by allowing the teacher to break the class up into dyads and small groups with little transition time. Classic cooperative strategies such as "Think-Pair-Share" (Lyman, 1981) and "Jigsaw" (Aronson, 1971) will become routine as a result of the redesign. In short, every cooperative strategy discussed by Wilbert McKeachie in his classic text on college teaching will be possible in the redesigned space (Avinicki and McKeachie, 2010).
<b>Supports active learning</b>	The proposed classroom supports active learning by allowing for easy seating reconfiguration, dyad and small group activity, computer fact checking and research, fishbowl discussions (Green, 2000), problem-based learning, simulation, and case study analysis. Again, every active strategy reported by McKeachie (2010) will be possible.
<b>Supports prompt feedback</b>	The proposed classroom supports prompt feedback because the teacher will spend much time circulating around the room checking on individual and small group activity. Doing so will afford the opportunity to provide immediate feedback and corrective suggestions within each class session. Moreover, heterogeneous groups will be somewhat self-correcting with more advanced students facilitating the concept formation of their group mates.
<b>Supports time on task</b>	The proposed classroom increases time on task by decreasing transition time between activities. This is possible because of the moveable node chairs by Steelcase that allow the teacher to reconfigure students at a moment's notice.
<b>Supports high expectations</b>	Teachers should always have high expectations of their students regardless of venue. However, those who know their students well can exert more interpersonal control than those who don't. The proposed classroom increases the probability that teachers will be perceived as supportive because the design forces contact. A student could "hide" in the old L-317; but that will not be possible in the redesigned room.
<b>Supports diverse talents and ways of learning</b>	The proposed classroom supports diverse talents and learning preferences in multiple ways. Lecture, dyad learning, small group work, peer editing, computer fact checking and research, jigsaw, fishbowl discussion, and Think-Pair-Share are but a few of the possibilities. The ease of reconfiguring the seating will be key to supporting diverse talents and learning preferences. For example, it will be possible to seamlessly change the classroom activity every 10 to 15 minutes. The redesign will also support diverse ways of teaching. Teachers who previously felt their role was the "sage on the stage" will now be able to reinvent themselves in a modern learning environment.


**SIGNATURES:**

  
\*\*Project Director Date

  
\*Associate Dean/Department Head Date

  
\*Vice President Date

  
\*\*Director of Building & Grounds Date

  
\*\*Director of Data & Voice Date

- \* For notification purposes only
- \*\* For project feasibility



## Non-Instructional Proposals

**Complete this section if this is a Non-Instructional Proposal, related to college areas that serve and support student instructional progress. (Non-Instructional areas include Library Services, the Learning Lab, Counseling, and Placement Services.)**

### Expected Outcomes (Project Objectives)

**What will this project accomplish that you can't accomplish now?**

N/A

**How does the project enrich or support the learning, teaching, or communication technology needs of students? (List specific examples.)**

*As a result of this project, service to students will be improved through:*

### SIGNATURES:

\*\*Project Director

Date

\*Associate Dean/Department Head

Date

\*Vice President

Date

\*\*Director of Building & Grounds

Date

\*\*Director of Data & Voice

Date

\* For notification purposes only

\*\* For project feasibility



# Henry Ford Community College Technology Investment Fund Project Funding Request

## Executive Summary

DATE OF APPLICATION	PROJECT TYPE
January 20, 2012	<input checked="" type="checkbox"/> New <input type="checkbox"/> Upgrade/Expansion
NAME OF PROJECT DIRECTOR OR PRESENTER	DEPARTMENT/DIVISION
Kim Schopmeyer, Meena Sharma, and Elaine Louisell	Social Science
COST OF PROPOSED PROJECT	NUMBER OF STUDENTS SERVED ANNUALLY
TIF Funds: \$ 26,431.51 Divisional Budget: \$ 25,600.00 <u>HCEC Renovation Project</u> \$ 36,300.00 Total: \$ 88,331.51	More than 500-600 annually



The Social Science Division is developing an innovative classroom design that will foster high levels of collaboration and active learning. This classroom will provide in an environment that develops computer-based research skills, presentation skills, information- and computer-literacy, and various applications in the social science.

This classroom design couples current instructional technology with the ability to provide a wide range of student configurations to foster collaboration, active learning, along with computer literacy and information literacy skills. The perimeter of the classroom will have computer carrels on two walls, each of which are to be shared by two students to promote collaborative learning.

The traditional table and chair format will be eliminated and replaced by Node chairs that have wheels and fold-away tables for students to quickly rearrange themselves in various configurations (traditional lecture, small group, pairs, seminar seating) when on the main area of the classroom, this creating the ultimate flexibility in a classroom.

Examples of specific usage include:

- Students will conduct effective Internet searches to obtain information and data related to topics being studied in the course syllabus. This promotes information literacy and fosters skills in evaluating the appropriateness of data.
- Students will utilize basic analytical software, such as spreadsheet or other tools that will develop skills in social science research methods. For example, students can download Census Bureau data to examine changes in the Detroit metro area.
- Students will compile information, based on their Internet research, and create presentations to share with others in the class.
- Students will work in pairs or small groups to complete test questions linked to learning objectives. Higher-order learning objectives can be addressed in collaborative settings and push students to analyze more complex questions.
- Students can use online study tools available through textbook publisher websites. These can be used for practice test questions to help students prepare for high-stakes assessments later on.
- Using Skype or other systems for audio/ visual communication, students can interact with students at other colleges in other parts of the US or in other countries. Students can collaborate with their counterparts to develop research projects to compare different cultures, family, schools, health and medicine, or employment and share presentations in both locations.

The diversity of possible educational strategies foster higher engagement resulting in enhanced learning, while integrating and developing a much broader range of skills and knowledge. The opportunities to use and apply computer and information technology can be incorporated into nearly every class session because of the flexibility of the class design.