Teacher’s Resource Manual

for

adapting the

Making Industry Meaningful In College

(MIMIC) Model
MAKING INDUSTRY MEANINGFUL IN COLLEGE
- MIMIC -

Teacher’s Resource Manual

by
Dorene Perez
James Gibson
Rose Marie Lynch

Illinois Valley Community College
815 North Orlando Smith Avenue
Oglesby, IL 61348
Phone: 815.224.2720  FAX: 815.224.3033
http://www.ivcc.edu/mimic
2008
Teachers: You can make industry, service businesses and other workplaces meaningful for your students

In 1994, an engineering design instructor and an accounting instructor at Illinois Valley Community College (IVCC) participating in an IVCC Tech Prep Team meeting discussed their students’ need for workplace experience. The two began collaborating on a plan to provide that experience within the confines of their classrooms. As members of the Tech Prep Team, they had been working to integrate academic and vocational / technical subject matter, but the instructors wanted to integrate their students as well. The instructors decided to team their students into simulated companies to develop, produce and sell consumer products. The result of that collaboration was the Making Industry Meaningful In College (MIMIC) project, which was offered in spring 1995. MIMIC was an immediate success, winning a Connections Award for Innovative Integrated Curriculum Effort from the Illinois State Board of Education in its first year.

Since its successful debut, electronics students and an electronics instructor have been added to the project, and a MIMIC business course has been developed to allow students from a variety of business fields to benefit from participation. For a few years, while IVCC had a plastics manufacturing program, students enrolled in that program also participated on the teams.

Over the years, MIMIC students have been hesitant about the project during its early stages and praised it at the conclusion. Industry representatives have continued to voice their support for it because it requires students to deal with problems they will face on the job but don’t usually face in the classroom. The MIMIC project has been featured at a number of national and international conferences and been the subject of articles published in peer-reviewed journals.

In 2005, IVCC received a three-year grant of $229,000 from the National Science Foundation to make the MIMIC project the focal point for the technical programs in engineering design, electronics, and manufacturing.

We have continued our commitment to the MIMIC project because it is successful and simple. We believe that adapting the MIMIC model is limited only by the commitment and imagination of the organizers and support of college or school administrators. The materials in this manual are designed to guide you in adapting the MIMIC model to your school or college, your courses, and your students. MIMIC has made industry meaningful at Illinois Valley Community College; the MIMIC model can make industry, service businesses and other workplaces meaningful at your school or college.

Dorene Perez
Jim Gibson
Rose Marie Lynch
ACKNOWLEDGEMENTS

The authors wish to acknowledge the support of the Illinois Valley Community College administration which has encouraged the development and offering of the MIMIC project and the dedication and commitment of Alice Steljes, the accounting instructor, now retired, who was one of the project originators. The authors also wish to acknowledge the cooperation and assistance of accounting instructor Susan Koepke and marketing instructor Bob Reese, who have served as business instructors on the MIMIC team; Tim Bias, who has served as a manufacturing instructor on the MIMIC team; and graphic design program coordinator Francie Skoflanc.

The authors also wish to acknowledge the assistance of the National Science Foundation. The material in this manual is based upon work supported by the N.S.F. under Grant No. 0501885. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.
# Table of Contents

**Basics of the MIMIC project** ................................................................. 1  
Making Industry Meaningful at Illinois Valley Community College .. 1  
Organization and Scheduling of MIMIC ........................................... 2  
A Typical MIMIC Schedule ................................................................. 5  
Products Created by Student Teams ................................................. 6  
Communication Exercises in MIMIC ............................................... 7  
Student Requirements ..................................................................... 7  
Grading of MIMIC Students ........................................................... 8  
Assessments of Students and the Project ...................................... 8  
Costs for MIMIC .............................................................................. 9  
Adaptability of the MIMIC Model ................................................... 10  

**Establishing a MIMIC-like project** ............................................... 12  
Steps in Adapting the MIMIC Model .............................................. 12  
Brainstorming Prompt for MIMIC Model Ideas ............................ 14  

**Project organization forms** .......................................................... 15  
Team meeting forms ....................................................................... 18  
Product-related forms ................................................................….. 24  
Financial forms ............................................................................. 32  
Assessment forms ......................................................................... 36  
Evaluations of MIMIC, Oral Presentations, Written Reports ........ 36  
Evaluations of Teamwork ............................................................... 47  

**Establishing a Leadership Team** .................................................. 59  
Criteria for Selection to the Team ................................................. 59  
Leadership Team Training .............................................................. 59  
Leadership Team Activities ............................................................ 60  
Leadership Team Costs .................................................................. 61  
Success of IVCCs Team ................................................................. 62  
Leadership Team Publicity .............................................................. 63  
Team Information and Forms for Organizing a Team .................. 63  
Steps in a Establishing a Team ....................................................... 76  
Brainstorming Prompt for Leadership Team Ideas ...................... 78  

**Additional Information and Resources** ....................................... 79  
Similar Multi-Disciplinary College Projects .................................. 79  
Further Information About the MIMIC Project ............................ 79  
Further Information About the Leadership Team ......................... 81  
References .................................................................................... 81
Basics of the MIMIC project

Making Industry Meaningful at Illinois Valley Community College

Making Industry Meaningful In College (MIMC) is a multi-disciplinary project that exposes students to simulated business/industry experiences with the goal of preparing them for the workplace. IVCC students in engineering design, electronics and business are placed in teams, called “companies,” to design, prototype, manufacture, market and sell a product.
MIMIC is a one-semester project within courses in engineering design, electronics and business that are scheduled to meet at the same time. The common meeting time allows students to have company meetings once a week. Manufacturing courses do not meet at the same time, so manufacturing students work on the production of MIMIC products but do not meet with the student teams.

The MIMIC project stresses teamwork, critical thinking, problem solving and communication as it provides students with opportunities to sharpen their technical skills. The common meeting time allows the MIMIC instructors to schedule training sessions; MIMIC teams receive training in such areas as team building, goal setting, problem solving and communication skills, depending on need. IVCC instructors are invited into team meetings or into the individual courses to teach those skills, just as consultants would be hired to provide training in a business or industrial setting.

In addition to providing students with opportunities to practice their technical and workplace skills, MIMIC is now the nucleus for integrating continuous quality improvement and reengineering throughout the two year programs in engineering design and electronics. When MIMIC was pioneered in 1995, the entire process was completed in one semester, including team assignments, product decisions and designs, training in teamwork and other skills, prototyping, production, marketing and sales. While the project successfully provided teamwork, problem solving and communication experiences, the one-semester time frame limited the design experience of the technical students and the viability of the products. Today, the engineering design and electronics students begin designing original products and reengineering previous MIMIC products before the capstone MIMIC project. When MIMIC companies have their first meetings, they are assigned products, and while those products may still need some refinement and design work, the time-consuming process of deciding on a product and creating preliminary designs has been completed.

**Organization and Scheduling of MIMIC**

The scheduling of MIMIC begins with MIMIC instructors insuring that the courses that include the project are scheduled to meet at the same time during the spring semester. Students enrolled in the following courses participate in the project:
• Engineering Design Projects (CAD 2208), a capstone course in engineering that enables sophomore CAD/CAE students to use their skills to successfully design a product for production.
• Motors and Controls II (ELE 1203), the last course in the electronics sequence, which focuses on three-phase motors and generators, power and control wiring, forward-reverse and speed-control generators.
• Integrated Business Operations (BUE 2260), a sophomore-level course, required in most Associate in Applied Science degree programs in business and computers. The course offers students credit for the business side of the student companies.

Just before the MIMIC semester begins, the instructors evaluate the products that have been redesigned, looking not only for the quality of the design, but also for the cost, ease of production and marketability. As the semester begins, instructors assign students into “companies” and assign each company to a product. Enrollment determines the number of companies and how many students from each discipline are in each. Typically a company includes two engineering design students, two electronics students, and a mix of students from the various business fields. Companies meet immediately for orientation and training. While certain training sessions are routinely provided, others are added based on the needs of students and student companies that semester.

MIMIC instructors invite other instructors to provide training lessons to student teams just as businesses and industries hire consultants or trainers for their employees. The instructors are paid a stipend from funds provided through a Tech Prep grant and supported from 2005 – 2008 by a National Science Foundation grant. Industry representatives are also invited to provide training lessons.

Communication channels, including e-mail, WebBoard and Blackboard, are established to allow students to conduct their company business realistically; students must prepare agendas, act as facilitators, and take and disseminate notes of meetings.

During the weekly meetings that follow, companies decide on a product name and corporate name and training in various workplace skills continues. While the engineering design students act as project managers, students assume responsibility for a portion of the project based on their discipline: marketing students survey potential buyers to gauge product and pricing
preferences and research any competition, accounting students start on production budgets, business students plan the on campus fair where the products will be sold.

The student teams research and purchase materials and determine the final selling price. A minimum of one week is devoted to producing the products with the students in all of the disciplines required to participate. The number of units to be produced is determined by the student teams with approval from the instructors. Marketing students design packaging and prepare the written instructions for assembly and/or operation of the products, sometimes working with students in a technical writing class.

Business students are in charge of scheduling, planning, picking a theme, promoting and setting up an end-of-semester MIMIC Fair where the products are sold.

All of the students assist in the sale of their company’s product at the on-campus fair. The final work on the project is completed by accounting students who prepare a cost analysis of the sales at the fair, which culminates in a recommendation on the commercial viability of each product. The MIMIC project wraps up with a celebration dinner for all participants with awards and certificates presented to the students.
The placemat design, above, for the MIMIC celebration dinner, includes MIMIC and IVCC trivia questions. In addition to receiving awards for their MIMIC work, students compete for prizes on the quiz.

A Typical MIMIC Schedule
A typical schedule for the MIMIC semester, Spring 2008, is below.

January 9  Classes meet
January 14  Entire MIMIC group meets
January 16  MIMIC companies meet to discuss product
January 21  College closed
January 23  Company meetings
January 30  Company meetings

There are company meetings every Wednesday throughout the semester unless otherwise announced. Once a month, before team meetings, there is a team building activity or quality training activity.

February 18  No classes (Presidents’ Day)
February 13  Design prototype
February 27  Engineering design finalized and
February 27  Engineering presentation given to entire MIMIC group
Feb. 27-March 21  Working prototype
March 17 - 21  Spring break
March 26  Electronics presentation to entire MIMIC group  
April 7 – 11  Production week  
April 16  Quality review  
April 16  Marketing presentation to entire MIMIC group  
April 23  MIMIC Fair  
April 30  Accounting presentation to entire MIMIC group  
May 5 or 7  Final meeting and celebration

Products Created by Student Teams

Typical MIMIC products include lamps, clocks, electronic games, security devices, lighted fish tanks, desktop water fountains, and lighted picture frames. Because electronics students are on the MIMIC teams, the products include electronic components. Since the products are sold at an on campus fair, the products must be moderately priced and appealing to students, faculty, and staff. Before the MIMIC semester begins, MIMIC instructors evaluate proposed products, which are undergoing reengineering, for feasibility, design intent, functions, specifications, capability for manufacturing and assembly on campus, marketability and cost.

The products illustrated below were produced and sold by MIMIC teams in recent years.

MIMIC team products include a strobe light (left) and desktop organizer (above)
Communication Exercises in MIMIC

A number of communication exercises are integrated into MIMIC. In addition to the small group communication skills required for the student companies to function successfully, the students complete other types of communication exercises that would be required of them on the job. All of the students give oral presentations to an audience that includes the student teams and members of the faculty and administration. The presentations are scheduled throughout the semester with students from each discipline explaining their portions of the project: engineering students defend the product designs early in the semester, and accounting students defend their product viability recommendations at the end of the semester.

The types of written materials produced by the students are determined by their discipline: engineering students detail their product designs in formal, technical reports; marketing students write/design advertising materials.

Student Requirements

MIMIC students must meet teamwork requirements, listed below and included in the student guidebook. Students must:

- Attend company meetings.
Participate in discussions about the best approach to produce the product and to work with team members to solve problems.

Give an oral presentation to the MIMIC group. Depending on the number of students in the project and in the individual courses, the student might present alone or as part of a team.

Work in the production of their products. One week in the MIMIC schedule is for production.

Facilitate at least one company meeting. The facilitator sets the agenda for the meeting and conducts the meeting.
  - Engineering design students conduct the meetings during the design phase of the project.
  - Electronics students conduct the meetings during the prototyping phase.
  - Business students conduct the meetings during the weeks before the Fair.

Participate in the MIMIC Fair.

Attend the final meeting and celebration.

In addition to those general requirements, students must meet requirements set by their individual instructors. Students enrolled in Design Projects, for example, must meet dress code requirements for company meetings and presentations. Since MIMIC can be a capstone project or a class project, students must also meet requirements for the course in which they are enrolled, including assignments not directly related to the MIMIC project.

**Grading of MIMIC Students**

Students are graded by their individual course instructors on the basis of requirements for all MIMIC students (see Student Requirements) and additional requirements for the individual courses in which they are enrolled. Information about assessments of students is included below and samples of assessments utilized by MIMIC instructors are included in Chapter 7.

**Assessments of Students and the Project**

MIMIC students, student products and the MIMIC project are evaluated by a number of people from a number of perspectives:

- Instructors evaluate product designs, redesigns, working drawings, final drawings, prototypes and products.
• Instructors evaluate marketing surveys, promotional plans, accounting reports, financial plans, oral reports, written reports, e-mail and memos.
• Instructors and students evaluate teamwork
• Consulting instructors assist in evaluating oral reports, written reports, marketing materials, e-mail and memos.
• Manufacturing, business, graphic design, math and science instructors and potential buyers evaluate products.
• Accounting students evaluate the commercial viability of products.
• Students evaluate the training provided by the consulting instructors.
• Students provide feedback on the project.
• Business and industry leaders provide feedback on the products, program and graduates.

Costs for MIMIC
MIMIC is a very cost-effective project. Typically, the MIMIC budget has been between $3,000 and $4,000 a year, allocated as follows:
• $1,000 to $1,500 for product supplies
• $1,500 to $2,000 for three or four MIMIC instructors at a $500 stipend each
• $1,000 for stipends to other IVCC instructors for providing training in teamwork and other workplace skills

The product supply funds are allocated to each student company based on the number of companies formed that semester. A total of 30 to 60 students participate in the MIMIC project, resulting in four to six student companies. MIMIC instructors control product supply costs by adjusting the requirements the student-designed products must meet and evaluating component costs before approving a product for manufacture. MIMIC students control product costs by being enterprising in soliciting donations of supplies from lumberyards and hardware suppliers and in locating low-cost supplies.

The $500 stipend for each MIMIC instructor is for the additional time necessary to coordinate the project, including weekly meetings of the instructors. In addition to the engineering design, electronics and business instructors who supervise MIMIC, a manufacturing instructor is working with the MIMIC teams in the production of products. Fully integrating manufacturing students into the MIMIC project continues to be a goal, but
manufacturing courses meet in the evening, making it impossible for manufacturing students to meet with the MIMIC teams.

The stipends to other IVCC instructors are for special training provided to the MIMIC companies or to students in their individual courses to assist them in meeting their team responsibilities. The instructors are paid $75 or $50 for a one-session exercise based on whether the exercise is new or a repeat.

Income from the sale of MIMIC products is utilized for additional supplies and an end-of-project celebration each year.

MIMIC is sponsored by the college’s Tech Prep Team, with funding provided through Carl D. Perkins legislation. For 2005 through 2008, a grant from the National Science Foundation provides funds for supplies, the stipend for the manufacturing instructor and stipends to IVCC instructors for providing the training.

Adaptability of the MIMIC Model
MIMIC is a capstone project for four-semester technical programs at a community college, but the concept is adaptable to a varying number of semesters and a variety of college or school settings and programs.

The cost-effectiveness of MIMIC also makes it very adaptable to various school settings. Projects developed from the MIMIC model need start-up funding but can be self-sustaining from the sale of goods or services, especially with the support of industry partners.

Four offshoots of MIMIC, developed at IVCC and described below, illustrate that the adaptability of the model is limited only by the commitment and imagination of organizers and the support of college or school administrators.

Day Care Camp: In 1997, IVCC instructors in business, early childhood education and educational psychology began offering a day care camp project. Students majoring in accounting, computer science, early childhood education, teacher education, marketing, management, and micro-office technology organized and operated a one-week day camp for school-age children. The students worked in committees to plan, market, recruit, organize, implement and evaluate the camp, which was held during the
grade schools’ spring break. The camp utilized and integrated the expertise of instructors and students in other fields. Science instructors, for example, offered science activities for the children, and student organizations offered activities related to their areas of interest. The camp project was offered for four years.

**Puppet Theater:** In 2002, MIMIC instructors worked with theater, art and English instructors on a project entitled Give Us A Hand Puppet Production. Students designed and built a portable puppet theater with a lighting system, designed and constructed puppets, wrote a script, auditioned for parts, developed and managed a budget, created marketing materials, marketed and presented a production. Over the two semesters of the project, engineering design and electronics students worked with theater students to learn about theater materials, design elements, and stage lighting effects and zones. Electronics students consulted with engineering design students to ensure the lighting system fit in the theater. As materials were being selected, the technical and theater students consulted with accounting students about expenditures and learned the impact of finances. Theater students also learned how engineering and electronics students approach a project.

**Pet Basket:** In spring 2007, a graphics design student created a basket containing dog products as an assignment for a class. Other students decided to develop the gift basket project for another class; the baskets would be designed for people adopting dogs from shelters. In fall 2007, graphics design students worked with engineering design students and ceramics students to create dog-related products, assemble the baskets, and sell them at a campus craft fair under the name of Pawsitively Purrfect. A portion of the proceeds were donated to a local animal shelter. Future plans are to create similar gift baskets for cats and to include marketing students.

**Faces of the Homeless:** A multi-disciplinary project about the homeless is in the planning stages. Students in graphics design, art, human services, sociology and creative writing would work with a local homeless shelter to raise public awareness about homelessness. The project might result in an art show and/or fundraiser, which could include posters, brochures, masks (created by ceramic students), and poems or essays about what it means to be homeless.
Establishing a MIMIC-like project

Steps in Adapting the MIMIC Model

The steps below will guide you in establishing a multi-disciplinary project.

1. Decide the goals for a student teamwork project

2. Determine the disciplines that might be included to accomplish those goals

3. List the classes and/or instructors that might participate.

4. Secure approval from administrative staff and recruit the instructors.

5. Address class scheduling. Can participating classes meet concurrently? If not, how can the project be coordinated?

6. Brainstorm specific project ideas, with participating instructors, and select one (See Brainstorming Prompt below)

7. Determine equipment, materials and supplies needed

8. Set a budget.
   - What funds are necessary for start up?
   - Instructor/staff stipends to organize/supervise the project and to provide students with additional training to be successful in the project?
   - Equipment, materials, and supply costs?
   - Other?
• Can project eventually be self-sustaining or largely self-sustaining?

9. Determine potential funding sources
• Grants
• Donations
• Sales / charges for services

10. Identify potential business/industry partners
• Could they assist with project ideas?
• Could they assist with funding or needed equipment/materials?

11. Acquire funding

Do you have an upcoming meeting or in-service session in which staff members could brainstorm ideas for collaborative/teamwork combinations? The MIMIC project emerged from just such a session. See the Brainstorming Prompt below.

Once these planning issues are addressed, organization of the project begins:

• Providing participating instructors with planning time together
• Recruiting business/industry partners, as needed
• Scheduling the project, including class scheduling
• Determining project objectives
• Setting student requirements
• Determining potential training needs of participating students.
• Recruiting instructors or business/industry partners to provide the needed training
• Determining and providing communication channels for student teams (e-mail, discussion board?)
• Selecting, adapting, or developing forms for student teams to use for approval at various stages of the project
• Designing assessments of student performance and of the project
Brainstorming Prompt for MIMIC Model Ideas

Review the information about MIMIC-model projects that have been organized at Illinois Valley Community College, then brainstorm on the questions listed below.

<table>
<thead>
<tr>
<th>MIMIC-model projects at IVCC</th>
<th>Classes Included</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIMIC (industry)*</td>
<td>Engineering design Electronics Business (various areas)</td>
<td>Design, prototype, market, produce and sell products.</td>
</tr>
<tr>
<td>MIMIC - Theatre</td>
<td>Engineering design Electronics Business Art Theatre English</td>
<td>Design and build a portable puppet theatre and puppets, write, market and present a production.</td>
</tr>
<tr>
<td>Day Camp**</td>
<td>Education Psychology Business</td>
<td>Plan and offer a one-week day camp for school-age children.</td>
</tr>
</tbody>
</table>

* Has included plastics and will include manufacturing in the future. Technical writing students have contributed product instructions and graphics and web design students have assisted student teams.
** Involved students from a number of subject areas in delivering lessons/exercises to the children.

Brainstorming questions

1. What programs, disciplines or courses could you adapt to the MIMIC model? What combinations of disciplines could produce a product or provide a service?

2. Could you incorporate business/industry partners?

3. Any ideas for funding sources?
Project organization forms

MIMIC instructors utilize a number of forms to organize and promote the MIMIC project, products and students. At the beginning of the MIMIC project, students sign a Project Agreement, in which they agree to abide by the guidelines of the project; an Intellectual Property Agreement, which allows MIMIC instructors to use MIMIC products for educational purposes; and a Photo/Video/Statement Release, which allows the College to use photos or statements by MIMIC students in promotional materials. Examples of those forms and an alternative project contract follow.
**MIMIC Agreement**

I have read the MIMIC Guidebook, understand the requirements of the project, agree to be punctual and to attend company meetings and other MIMIC events, and will abide by the other terms and conditions of the project.

Signature _______________________________ Date _______________

**Intellectual Property Agreement**

I hereby give my consent to Illinois Valley Community College to document my MIMIC project work and to utilize that documentation for educational or promotional purposes, without compensation, in perpetuity. Documentation may include photographs, diagrams, or videos in print or electronic format.

I also hereby give my consent to Illinois Valley Community College to retain samples of products and components which I develop or assist in developing for the MIMIC project and to utilize those products or components for educational or promotional purposes, without compensation, in perpetuity.

Signature_______________________________ Date_____________
Printed Name________________________________________

**Photo/Video Statement Release**

I hereby release rights to photographs, video and statements taken by Illinois Valley Community College to use in possible promotional or educational materials, including IVCC’s Web site.

Signature_______________________________ Date_____________
Please initial in the left column alongside each of the items in the two tables below. You will complete the columns on the right at the end of the project.

**MIMIC Team Project Contract**

<table>
<thead>
<tr>
<th>During this semester, I agree to...</th>
<th>I was fully successful in...</th>
<th>I was partly successful in...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participate fully in team meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commit to the team’s product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respect my team members, all of them</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work positively with team members and encourage development of a true team spirit or team identity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do all of the tasks I am assigned to or volunteer for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do my tasks on time (by dates assigned by team or that I volunteer for)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete my oral presentation assignment on time (by dates assigned by team or that I volunteer for, not just in time for the presentation)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete my project paperwork assignments on time.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I agree not to...</th>
<th>I was fully successful in not...</th>
<th>I was partly successful in not...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominate the discussion or “take over” other team members’ responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Let (require) other team members assume my responsibilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17
Team meeting forms

MIMIC teams utilize a number of worksheets and forms as they conduct their “company” business. The forms, which they submit to their instructors, simulate the paperwork in business and industry, assist in organizing and providing structure to the teams, and provide the instructors with information that allows them to monitor the progress of the teams, and to evaluate portions of the work of individuals and of the teams.

The meeting form samples that follow include a worksheet for team members to exchange contact information, an agenda form, a worksheet for taking notes during team meetings, and a meeting evaluation form. Team members keep the contact information sheet for use throughout the project. The agenda and meeting evaluation form are submitted to MIMIC instructors. The team member assigned to take notes uses the notetaking worksheet to record potentially useful information, which is then written and organized into a summary and emailed to team members and instructors and/or posted on WebBoard.
# TEAM MEMBER CONTACT INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone Numbers</th>
<th>E-mail (print carefully)</th>
<th>Work days/hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Home:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work: (if okay to call)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cell:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Home:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work: (if okay to call)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cell:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Home:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Work: (If okay to call)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cell:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructor</td>
<td>Phone:</td>
<td>E-mail:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# AGENDA

Team name: 

Prepared by (facilitator): 

Meeting date: 

<table>
<thead>
<tr>
<th>AGENDA ITEM</th>
<th>PERSON</th>
<th>TIME</th>
<th>RESULTS NEEDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td></td>
<td>Minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minutes</td>
<td></td>
</tr>
<tr>
<td>Agenda items for next meeting</td>
<td></td>
<td>Minutes</td>
<td></td>
</tr>
</tbody>
</table>
WORKSHEET FOR TEAM MEETING NOTES

1. Date_________ Time ___________ Place _______________________

2. Attending:

   Absent:

3. Major decisions group reached:

   a. 
   b. 
   c. 
   d. 

4. Major issues discussed with no decision made:

   a. 
   b. 
   c. 
   d. 

5. Other topics of discussion:

6. Responsibilities assigned (or reminders announced):

   a. 
   b. 
   c. 
   d. 
   e. 
7. Deadlines or timelines assigned (or reminders announced):
   a.
   b.
   c.
   d.
   e.

8. News on progress (or lack of it) on project(s) – use person’s name and report what progress they have made, or have not made on their responsibilities. Be specific and report what they have or have not done. DO NOT just write that they have (or have not) made progress. What progress have they made?

   ______________ reported….
   (person’s name)

   ______________ reported….
   (person’s name)

   ______________ reported….
   (person’s name)

   ______________ reported….
   (person’s name)

9. Problems encountered:

10. Next meeting scheduled:

11. Agenda items for that meeting:
Meeting Evaluation
Your name ________________________
Facilitator’s name ___________________
Meeting Date ______________________
Company Name ____________________

Meeting Administration

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the room adequate?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the meeting start on time?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who was late?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were the appropriate people present?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>If not, who was absent:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was the agenda followed?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Did the meeting end on time?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

Group Spirit

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did everyone participate?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was the meeting free from disruptions?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Was there a healthy group spirit?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Comments:

Effectiveness

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the meeting a good use of time?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you accomplish your goals?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:

Give a brief synopsis of the meeting:
Product-related forms

**Design Approval Form**

The design approval form on the following page was utilized by MIMIC teams in the past, when the MIMIC project began with each team deciding on and designing a new product. Once a team had determined a product and researched components, they submitted the approval form, which had to be signed by all MIMIC instructors – engineering design, electronics and business.

Today, MIMIC teams are assigned a product when the project begins. Those products have undergone reengineering before being assigned to a team although the products typically need some refinements before going into production.

**Design Research Survey**

As product designs are being finalized, near the beginning of the MIMIC project, the design research survey included below is administered to students studying design in the graphic arts program.

**Marketing Survey**

Marketing students in each “company” prepare, distribute and analyze the results of a marketing survey before each MIMIC team makes final decisions on a product’s design and price. The surveys, distributed to a sampling of the product’s target customers of IVCC students and staff, question potential customers on their preferences for product variables such
as materials, colors, and price. The surveys vary depending on the product and production choices of each team, but an example of a marketing survey is included in this chapter.

**Price Approval Form**

Each MIMIC “company” submits a price approval form indicating the price range for which a product will be sold at the MIMIC Fair. All MIMIC instructors much approve of that range. Student team members make a final choice of price before the fair.

**Product Feedback Form**

The Product Feedback form is utilized after product prototypes are available. A product-evaluation session is scheduled with the following people invited:

- Engineering design, electronics and business students not involved in the MIMIC project
- Art/graphic design students
- IVCC instructors and staff, with special invitations sent to manufacturing, marketing, math and science instructors
- Industry representatives
MIMIC Design Approval Form

Product Description

Estimated components

Estimated cost of components (per unit)

Alternate choices

1.

2.

3.

Approved:

MIMIC Instructor Signatures
DESIGN RESEARCH SURVEY

Product:

Product name:

Product Description:

1. What is your overall perception of this product?
   Poor  Fair  Good  Excellent

2. What do you like most about this product?

3. What do you like least about this product?

4. What level of quality best describes this product?
   Low quality  Average quality  Good quality  High quality

5. Select how you feel about this product.
   Not a value  Average value  Good value  Excellent value

6. What features are valuable about this product?

7. What features are not valuable?
8. Would you be interested in buying this product?

9. What would be the main reason you would buy this product?

10. How do you feel about the design of this product?
    Poor design    Fair design    Good design    Excellent design

11. How would you improve the design?
    a. Proportion
    b. Color
    c. Style
    d. Other
Marketing Survey Example

Are you a ______ student
______ faculty member
______ staff member

1. Would you purchase a XXXXXXXXXXXXXXX, pictured at right?
   ______ yes
   ______ no

   If yes, would you purchase it for
   ______ yourself
   ______ a gift

   If no, can you explain briefly why not?

2. What materials would you prefer in the XXXXXXXXXXXXXXX?
   ______ plastic base and top
   ______ wood base and top
   ______ wood base and plastic top

3. What color combinations would you prefer in the XXXXXXXXXXXXXXX ?
   ______ black base and white top
   ______ blue base and gray top
   ______ oak stain (if you prefer wood)
   ______ walnut stain (if you prefer wood)

4. What would you be willing to pay for the XXXXXXXXXXXXXXXX?
   ______ $6 to $8
   ______ $9 to $11
   ______ $10 to $12

COMMENTS ABOUT THE PRODUCT:
Price Approval Form

Company Name ________________________________

Company Number __________________________

Description of the Product

Cost to make product (one unit)

Suggested price (top and bottom range)

Signatures of company members

Signatures of MIMIC instructors
MIMIC Product Feedback

Please check whether you are:

_____ Faculty member (field) _____________________
_____ Staff member
_____ Industry representative
_____ Engineering / engineering design student
_____ Electronics student
_____ Manufacturing student
_____ Art/graphic design student
_____ Student in another field (list) _____________________

PRODUCT NAME ____________________________

1. Did you feel this product showed good workmanship and was a high quality product?

<table>
<thead>
<tr>
<th>Excellent Quality</th>
<th>Good quality</th>
<th>Average quality</th>
<th>Fair quality</th>
<th>Poor quality</th>
</tr>
</thead>
</table>

2. What did you think showed good workmanship or high quality?

3. What did you think did not show good workmanship / high quality?

4. Did you find this design appealing?

<table>
<thead>
<tr>
<th>Very Appealing</th>
<th>Somewhat appealing</th>
<th>Average</th>
<th>Somewhat unappealing</th>
<th>Very unappealing</th>
</tr>
</thead>
</table>

5. What did you find appealing about the design?

6. What did you find unappealing about the design?

7. Questions or other comments about this product?
Financial forms

MIMIC teams utilize a number of financial forms as they conduct their “company” business. The samples on the following pages include a production budget, MIMIC Fair budget, and reimbursement form. Budget forms are utilized by business students on the MIMIC teams, but budget information is shared with all members of the team. The reimbursement forms are utilized by all team members purchasing components, marketing or packaging materials, and supplies and materials used in production.
# Production Budget

Company Name _________________________   Product ________________________

Number of products proposed ____________

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit cost</th>
<th>Number of units for proposed number of products</th>
<th>Total $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components manufactured (list)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components purchased (list)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplies / materials (list)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total cost for production of proposed number of products**

Cost for production of one unit ________________
# Budget for MIMIC Fair

*Company name ________________________________*

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated $</th>
<th>Actual $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decorations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refreshments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giveaways, Prizes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reimbursement Request

RECEIPTS MUST BE ATTACHED

Name ___________________________________________

Date _______________

Address
________________________________________________________________

MIMIC company name
_____________________________________________________________

List below the items for which you are requesting reimbursement

<table>
<thead>
<tr>
<th>ITEM</th>
<th>WHERE PURCHASED</th>
<th>JUSTIFICATION (Reason for purchase)</th>
<th>$$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL
Assessment forms

Assessment forms are utilized to evaluate MIMIC students, teams, products and the project itself. A sample of a team meeting evaluation is included in Chapter 4: Team Meeting Forms, and a sample of a product evaluation is in Chapter 5: Product-Related Forms.

Evaluations of MIMIC, Oral Presentations, Written Reports

The forms that immediately follow are
- pre and post assessments of the MIMIC project, its goals and activities
- a brief evaluation of MIMIC teams, products and the fair, assessing what went right and what went wrong
- an oral presentation evaluation form
- a written report evaluation form
Pre-MIMIC Assessment

1. What program/courses are you enrolled in:
   _____ engineering design/CAD
   _____ electronics
   _____ business (accounting, business, computer services, marketing, information services, etc.)

2. When did you first hear of the MIMIC project?
   Year______ Or how long ago_______

3. How did you hear about MIMIC?
   _____ Read about it
     _____ in a newspaper
     _____ catalog/brochure
     _____ other (specify) _____________________
   _____ Heard about it
     _____ from friend/acquaintance/fellow student
     _____ from a high school teacher
     _____ from an IVCC teacher
     _____ from a high school counselor
     _____ from an IVCC counselor
     _____ other (specify) _____________________
     _____ From the MIMIC Fair on the IVCC campus
     _____ Other (specify) _______________________________

4. What was your first impression of the MIMIC project (when you first learned of it)
   very favorable somewhat favorable neutral somewhat unfavorable very unfavorable

   Comments:
5. As you begin the MIMIC project this semester, how comfortable/confident do you feel about your skills/abilities in the following areas: (circle your response)

   a. Working in teams
      
      very comfortable somewhat comfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
   
   b. Giving oral presentations
      
      very comfortable somewhat comfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
   
   c. Writing technical reports
      
      very comfortable somewhat comfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
   
   d. Understanding the entire industry process including:
      
      • concept/design
      very comfortable somewhat comfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
      
      • prototyping
      very comfortable somewhat comfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
      
      • reengineering
      very comfortable somewhat comfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
      
      • purchasing
      very comfortable somewhat comfortable neutral somewhat uncomfortable
      very comfortable somewhat uncomfortable neutral somewhat uncomfortable
• production
  very  somewhat  neutral  somewhat  very
  comfortable  comfortable  uncomfortable  uncomfortable

• marketing
  very  somewhat  neutral  somewhat  very
  comfortable  comfortable  uncomfortable  uncomfortable

• accounting/budgeting
  very  somewhat  neutral  somewhat  very
  comfortable  comfortable  uncomfortable  uncomfortable

e. Abiding by the rules of the project and set by the instructors (For example: dress code, meeting evaluations etc.)
  very  somewhat  neutral  somewhat  very
  comfortable  comfortable  uncomfortable  uncomfortable

f. Working with new ideas and concepts
  very  somewhat  neutral  somewhat  very
  comfortable  comfortable  uncomfortable  uncomfortable

Comments?
MIMIC – End of Project Assessment

1. What program are you enrolled in:
   _____ engineering design/CAD   _____ electronics
   _____ business (accounting, business, computer services, marketing, information services, etc.)

2. At this time, how comfortable/confident do you feel about your skills/abilities in the following areas: (circle your response)
   a. Working in teams
      very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable
   b. Giving oral presentations
      very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable
   c. Writing technical reports
      very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable
   d. Abiding by the rules of the project and set by the instructors (for example: dress code, meeting evaluations etc.)
      very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable
   e. Working with new ideas and concept
      very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable
   f. Understanding the entire industry process including:
      (1) concept/design
      very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable
(2) prototyping
very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable

(3) reengineering
very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable

(4) purchasing
very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable

(5) production
very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable

(6) marketing
very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable

(7) accounting/budgeting
very comfortable  somewhat comfortable  neutral  somewhat uncomfortable  very uncomfortable

g. Please indicate your attitudes toward the following statements (circle your response):

a. My experiences in MIMIC helped me improve my skills/abilities in teamwork.

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

b. My experiences in MIMIC helped me improve my skills/abilities in giving oral presentations

   Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree
c. My experiences in MIMIC helped me improve my skills/abilities in writing technical reports

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

d. My experiences in MIMIC helped me improve my skills/abilities in working with new ideas and concepts.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

e. My experiences in MIMIC helped me improve my skills/abilities in understanding the entire industry process including:

(1) concept/design

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

(2) prototyping

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

(3) reengineering

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

(4) purchasing

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

(5) production

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

(6) marketing

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>
(7) accounting/budgeting

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

h. What is your impression of the MIMIC project now?

<table>
<thead>
<tr>
<th>very favorable</th>
<th>somewhat favorable</th>
<th>neutral</th>
<th>somewhat unfavorable</th>
<th>very unfavorable</th>
</tr>
</thead>
</table>

Comments:
MIMIC Project: What Went Right and Wrong

Your Company Name _______________________________

YOUR TEAM
1. Rank your team, on a scale of 1 – 10, with 10 being highest rank.

2. Did your team work together well? Explain briefly.

3. Did you participate fully? Explain briefly.

YOUR PRODUCT
4. Rank your product, on a scale of 1 – 10, with 10 being highest rank.

5. What is good, appealing, high quality about your product?

6. What is not good, not appealing, not high quality about your product?

THE MIMIC FAIR
7. Rank the MIMIC Fair, on a scale of 1 – 10, with 10 being highest rank.

8. What went well about the MIMIC Fair?

9. What did not go well?

ANY OTHER COMMENTS:

44
### Oral Report Evaluation - Engineering

**Team no:** ___________  **Company Name** _______________

**Project** ____________________________

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Names (N= )</td>
<td>% Contribution (C)</td>
<td>F=NC</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**100%**

**EVALUATION BY INSTRUCTOR**

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Max. Value</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction of team members</td>
<td>2</td>
<td>____</td>
</tr>
<tr>
<td>2. Proper dress of team members</td>
<td>2</td>
<td>____</td>
</tr>
<tr>
<td>3. Statement of purpose of presentation</td>
<td>5</td>
<td>____</td>
</tr>
<tr>
<td>4. Use of visuals—point to important point, do not block the screen, do not fumble, etc.</td>
<td>10</td>
<td>____</td>
</tr>
<tr>
<td>5. Adequate number of visual aids</td>
<td>9</td>
<td>____</td>
</tr>
<tr>
<td>6. Quality of visual aids</td>
<td>15</td>
<td>____</td>
</tr>
<tr>
<td>7. Clear presentation of recommended design</td>
<td>10</td>
<td>____</td>
</tr>
<tr>
<td>8. Presentation of alternate solutions considered</td>
<td>2</td>
<td>____</td>
</tr>
<tr>
<td>9. Consideration of human factors</td>
<td>5</td>
<td>____</td>
</tr>
<tr>
<td>10. Coverage of economics (manufacturing, shipping, packing, overhead, mark-up, etc.)</td>
<td>10</td>
<td>____</td>
</tr>
<tr>
<td>11. Presentation of an effective conclusion</td>
<td>5</td>
<td>____</td>
</tr>
<tr>
<td>12. Continuity of presentation</td>
<td>3</td>
<td>____</td>
</tr>
<tr>
<td>13. Poise and professionalism</td>
<td>2</td>
<td>____</td>
</tr>
<tr>
<td>14. Team participation (perfect score if all participate)</td>
<td>10</td>
<td>____</td>
</tr>
<tr>
<td>15. Use of allotted time</td>
<td>10</td>
<td>____</td>
</tr>
</tbody>
</table>

**Comments:**

100

---

45
**Written Report Evaluation - Engineering**

Team no: _____________  Company Name _______________

Project ____________________________

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Names (N= )</td>
<td>% Contribution (C)</td>
<td>F=NC</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**100%**

**EVALUATION BY INSTRUCTOR**

<table>
<thead>
<tr>
<th>Max. Value</th>
<th>Points Earned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Use of an appropriate cover</td>
<td>2</td>
</tr>
<tr>
<td>2. Inclusion of an evaluation sheet</td>
<td>2</td>
</tr>
<tr>
<td>3. Inclusion of a proper letter of transmittal</td>
<td>2</td>
</tr>
<tr>
<td>4. Correct title page</td>
<td>2</td>
</tr>
<tr>
<td>5. Proper table of contents</td>
<td>2</td>
</tr>
<tr>
<td>6. Sufficient introduction to the report</td>
<td>5</td>
</tr>
<tr>
<td>7. Thoroughness in identifying problem</td>
<td>10</td>
</tr>
<tr>
<td>8. Continuity and quality of body of the report</td>
<td>10</td>
</tr>
<tr>
<td>9. Collection and presentation of background data</td>
<td>5</td>
</tr>
<tr>
<td>10. Justification of major decisions</td>
<td>5</td>
</tr>
<tr>
<td>11. Review of costs, overhead, expenses</td>
<td>5</td>
</tr>
<tr>
<td>12. Arrival at strong conclusion and recommendation</td>
<td>5</td>
</tr>
<tr>
<td>13. Sufficient number of graphs and graphics</td>
<td>10</td>
</tr>
<tr>
<td>14. Quality of graphics</td>
<td>10</td>
</tr>
<tr>
<td>15. Bibliography</td>
<td>5</td>
</tr>
<tr>
<td>16. Extra attention to detail (graphics, covers, etc)</td>
<td>5</td>
</tr>
<tr>
<td>17. Appendix – content and form</td>
<td>5</td>
</tr>
<tr>
<td>18. Form and appearance of report (spelling, punctuation, neatness)</td>
<td>10</td>
</tr>
</tbody>
</table>

Comments: 100  

46
Evaluations of Teamwork

The forms on the following pages are used at various times throughout the MIMIC project to evaluate teamwork. Some of the forms are administered to all MIMIC students and some only to students in one course: Design Projects, Motors and Controls II or Integrated Business Operations. For administration in individual courses, MIMIC instructors are free to select the evaluations they wish to use.

Evaluations are utilized for different purposes throughout the project:

- Self evaluations by a student of his/her performance in that day’s meeting, typically submitted anonymously, are used to reinforce their teamwork skills.

- Evaluations by students of their team members (including themselves), everyone in their “company” and/or just the other students in their field, are used to assist instructors in evaluating the performance of individual students and to reinforce the students’ teamwork skills.

Some of the evaluations are submitted in hard copy; others are on-line forms, simplifying the tabulation of responses.
Teamwork Evaluation – Form 1

1. How effective was your teamwork today? Use the following scale to rate yourself on the items below.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helped team</td>
<td>OK</td>
<td>Not helpful to team</td>
</tr>
<tr>
<td>Involvement in discussion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leadership in team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooperation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual effort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value as team member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall contribution to the team process</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Use the scale below to rate your behavior today on the listed items.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good/excellent</td>
<td>adequate/OK</td>
<td>need work</td>
</tr>
<tr>
<td>Being respectful of all team members</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looking/sounding interested in the discussion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asking all team members for their opinions, Encouraging all team members to participate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressing my disagreement with any ideas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressing my disagreement tactfully</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. How productive/satisfying was your team meeting today? (circle)

| Very productive | adequate/OK | not very productive |

4. What could you have done to improve your team’s productivity today?
# Team Work Evaluation – Form 2

<table>
<thead>
<tr>
<th>Write one or two words to describe your...</th>
<th>Rate yourself on a scale:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall contribution to the team process</td>
<td>1 = helped team</td>
</tr>
<tr>
<td></td>
<td>2 = OK</td>
</tr>
<tr>
<td></td>
<td>3 = not helpful to team</td>
</tr>
<tr>
<td>Individual effort</td>
<td></td>
</tr>
<tr>
<td>Involvement in activity</td>
<td></td>
</tr>
<tr>
<td>Cooperation</td>
<td></td>
</tr>
<tr>
<td>Assistance to other team members</td>
<td></td>
</tr>
<tr>
<td>Positive feedback to other team members</td>
<td></td>
</tr>
</tbody>
</table>

Our team could have used assistance today with …

We (the team) could have fixed this by …
Teamwork Evaluation - Form 3

1. Overall, how effectively did your team work together today? (circle)
   Not at all    poorly    adequately    very well    extremely well

2. Use the scale below to rate yourself on each listed item, and provide one example of when you used that behavior during your team meeting.

   1                       2                3               4                  5                    NA
   Needs work        adequate        good    very good    I’m excellent    not applicable

<table>
<thead>
<tr>
<th>How effectively did you contribute to the team discussion by….</th>
<th>Rating</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Listening without interrupting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Clarifying for understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Inviting participation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Offering ideas and suggestions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Seeking out differences of opinion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Accepting feedback from others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Helping the team stay on task</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Fulfilling a team role (facilitator, note taker, timekeeper)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Critically evaluating information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Helping to identify the team task</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Helping the team reach a consensus</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Areas I need to work on to become a better team member are…
TEAMWORK EVALUATION – Form 4

1. Overall, how effectively did your team work together today?
   Poorly   adequately   well   extremely well
   Comment, if you indicated anything other than “extremely well”:

2. How many of your team members participated actively most of the time?
   none   some   most   all

3. Did you actively participate
   Nearly all of the time   some of the time   very little
   Comments, if you indicated anything other than “nearly all of the time”:

4. How many of your team members were fully prepared for today’s meeting
   None   some   most   all

5. Were you prepared?
   Yes, fully   Partly   Not at all
   Comment, if you indicated anything other than “yes, fully”:

6. What could you do to improve your performance as a team member?

7. What could your team do to improve its performance?
# Peer Performance Review

**Name of team member being reviewed** ______________________________

**Your name** ______________________________

**Date** ______________________________

<table>
<thead>
<tr>
<th></th>
<th>Exceptional</th>
<th>Exceeds Require.</th>
<th>Meets Require.</th>
<th>Marginal</th>
<th>Unsatisfactory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrates required skills and knowledge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has the ability to learn and use new skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses resources available in an effective manner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meets attendance requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listens to direction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takes responsibility for actions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Honors commitments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates problem solving skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offers constructive suggestions for improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generates creative ideas and solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meets challenges head on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrates innovative thinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responds effectively to assigned responsibilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:
Ratings and Sharing the Bonus

Please rate your team members and yourself on two bases below.

1. For the first, rate the degree to which each team member, including yourself, fulfilled his/her responsibilities.

   10 Outstanding – Consistently went above and beyond.
   9 Excellent – Sometimes went above and beyond, very cooperative
   8 Very good – Consistently did what he/she was supposed to, cooperative
   7 Satisfactory – Usually did what he/she was supposed to, acceptably prepared
   6 Ordinary – Often did what he/she was supposed to, minimally prepared
   5 Marginal – Sometimes did not complete responsibilities, often not prepared
   4 Deficient – Often failed to complete responsibilities, rarely prepared
   3 Unsatisfactory – Consistently failed to complete responsibilities
   2 Superficial – Practically no participation or visible interest in project
   1 No show – No real participation

2. For the second, assume your team has been awarded $1,000 in bonus money. Distribute the bonus among your team members, and yourself, based on your view of everyone's performance throughout the project.

<table>
<thead>
<tr>
<th>Your team members</th>
<th>Rating 1 – 10 (see above)</th>
<th>Bonus $ (Distribute $1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your name:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MIMIC Final Teamwork Assessment

Company Name ___________   Company Number __________

Which discipline are you in? ________________

SHARING THE CREDIT

Assume your company’s project is worth 100 points. Split those points among all of the members of your team, including yourself, based on the contribution each provided to the entire project. Your point split will be kept confidential.

<table>
<thead>
<tr>
<th>Your name</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
</tbody>
</table>

Assume your company’s project is worth 100 points in the ____________ (engineering, electronics or business) portion alone. Split the points among the member of your ________________ (engineering, electronics or business) team including yourself based on the contribution each provided to the entire project. Your point split will be kept confidential.

<table>
<thead>
<tr>
<th>Your name</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
<tr>
<td>Team member</td>
<td>______</td>
</tr>
</tbody>
</table>
YOUR CONTRIBUTIONS TO THE PROJECT

List below exactly what you did throughout the project. Be sure to include what you did during the decision phase, design phase, prototyping phase, production phase and marketing phase.

Task 1 ________________________________________________________
Task 2 ________________________________________________________
Task 3 ________________________________________________________
Task 4 ________________________________________________________
Task 5 ________________________________________________________
Task 6 ________________________________________________________
Task 7 ________________________________________________________
Task 8 ________________________________________________________
Task 9 ________________________________________________________
Task 10 ________________________________________________________

How would you describe yourself during the project? (check all that apply)

_____ Completed all tasks assigned or assumed.
_____ Contributed above and beyond my expectations.
_____ Maintained a good attitude.
_____ Showed enthusiasm for the project and the team.
_____ Participated in tasks in all areas.

Which of these areas do you need to work to improve? (check all that apply)

_____ Completed all tasks assigned or assumed.
_____ Contributed above and beyond my expectations.
_____ Maintained a good attitude.

_____ Showed enthusiasm for the project and the team.

_____ Participated in tasks in all areas.

**RATING COOPERATION – PARTICIPATION WITH TEAM:**

Rate your level or quality of participation – cooperation through the week of the project on the areas below using the following scale:

1. To a high degree or level
2. To an above average degree or level
3. Average
4. To a below average degree or level
5. Unsatisfactory

_____ Understand and work within the dynamics of a group
_____ Ensure that teams’ purpose and objective are clear
_____ Flexible, respect others, open to an supportive of opinions and contributions of others in team
_____ Recognize and respect people’s diversity, individual differences and perspectives.
_____ Accept and provide feedback in a constructive and considerate manner
_____ Contribute to team by sharing information and expertise
_____ Lead or support when appropriate, motivating team for high performance
_____ Manage and resolve conflict when appropriate.
_____ Involve others and keep them informed

Participation in projects and tasks:

_____ Plan, design or carry out a task from start to finish with well-defined objectives and outcomes
_____ Develop a plan, seek feedback, test, revise and implement
_____ Work to agreed quality standards and specifications
_____ Select and use appropriate tools and technology for a task or project
_____ Adapt to changing requirements and information
_____ Continuously monitor the success of a task and identify ways to improve

What grade would you give yourself on MIMIC? _________________

What advice would you give to future MIMIC students?
PLEASE RATE EACH OF YOUR TEAM MEMBERS IN THE AREAS LISTED BELOW.

Team member’s name ________________________________

Describe your team member during the project? (check all that apply)

_____ Completed all tasks assigned or assumed.
_____ Contributed above and beyond my expectations.
_____ Maintained a good attitude.
_____ Showed enthusiasm for the project and the team.
_____ Participated in tasks in all areas.

Which of these areas does your team member need to work to improve? (check all that apply)

_____ Completed all tasks assigned or assumed.
_____ Contributed above and beyond my expectations.
_____ Maintained a good attitude.
_____ Showed enthusiasm for the project and the team.
_____ Participated in tasks in all areas.

RATING COOPERATION – PARTICIPATION WITH TEAM:

Rate your team member’s level or quality of participation – cooperation through the week of the project on the areas below using the following scale:

1 To a high degree or level
2 To an above average degree or level
3 Average
4 To a below average degree or level
5 Unsatisfactory

_____ Understand and work within the dynamics of a group
_____ Ensure that teams’ purpose and objective are clear
_____ Flexible, respect others, open to an supportive of opinions and contributions of others in team
_____ Recognize and respect people’s diversity, individual differences and perspectives.
_____ Accept and provide feedback in a constructive and considerate manner
_____ Contribute to team by sharing information and expertise
_____ Lead or support when appropriate, motivating team for high performance
_____ Manage and resolve conflict when appropriate.
_____ Involve others and keep them informed
Team member’s participation in projects and tasks:

_____ Plan, design or carry out a task from start to finish with well-defined objectives and outcomes
_____ Develop a plan, seek feedback, test, revise and implement
_____ Work to agreed quality standards and specifications
_____ Select and use appropriate tools and technology for a task or project
_____ Adapt to changing requirements and information
_____ Continuously monitor the success of a task and identify ways to improve

What grade would you give your team member on MIMIC? ________________

What advice would you give to your team member? Please make this constructive.
Establishing a Leadership Team

A Leadership Team of students in engineering design and electronics programs at Illinois Valley Community College honors students who have demonstrated leadership potential and provides them with opportunities for personal and professional growth.

Criteria for Selection to the Team

Technical instructors nominate students for the team. A committee selects students to be invited on the basis of attitude, commitment and work ethic, willingness to help others and leadership potential; grades are not a determining factor.

Selected students are personally contacted by an instructor and receive a written invitation to join the team. They attend an informational lunch meeting where team activities are explained, and they sign a commitment form indicating the activities they find most interesting.

Leadership Team Training

Leadership Team members receive training through a course in college strategies, networking opportunities with business and industry representatives, attendance and participation in professional conferences, attending an Etiquette Dinner and other team activities, listed below. The skills which are emphasized: communication, teamwork, and the commonly-accepted leadership skills of decision-making, taking initiative, motivating people to accomplish common goals, and mentoring. (Cordova-Wentling et.al.2007 and Crawford, 1998)
The college strategies course is provided tuition free and is intended to assist team members with their mentoring responsibilities as well as with their own college courses. The interaction and networking opportunities with business and industry representatives occur at various events including meetings of an advisory board for the technical programs, on field trips, and at recruiting activities. Leadership team members are also encouraged to participate in engineering-related conferences by presenting a poster, writing a paper or giving a presentation. That participation is designed to help them sharpen their communication skills, network with university engineering students and professors, and pursue a bachelor’s degree. If the Leadership Team students are invited to give a presentation, they receive financial support to attend the conference. Team members who participate in an Etiquette Dinner, where they receive training in proper dining etiquette, attend the dinner free of charge.

**Leadership Team Activities**

Leadership Team members organize and participate in a variety of recruiting activities for their programs, mentor other technical students, and participate in professional activities, mentioned above. The specific activities vary from year to year, partly because the students are encouraged to define their role as leaders by planning and developing their own activities, but typical activities include:

- Speaking to high school classes or community organizations about IVCC programs
- Assisting with events such as a Career Night, Job Fair and open houses
- Assisting with events for high school or grade school students such as an Edible Car Contest or Inventor’s Camp
- Assisting with the MIMIC Fair (freshmen only)
- Mentoring other students pursuing a degree in their field
- Serving as an advisory board member for student input in the development of curriculum
- Participating in a professional conference including preparation of a poster or writing an article. The poster team members presented at the 2008 IL/IN Section of the American Society for Engineering Education Conference is below.
Leadership Team members presented a poster, thumbnail copy above, at the American Society for Engineering Education regional conference at Rose-Hulman Polytechnic Institute in March 2008.

Leadership Team students agree to participate in a certain number of activities each semester.

**Leadership Team Costs**

Costs for the Leadership Team include small stipends to team members, tuition waivers for a course designed to improve their success in college, meal costs for an informational lunch and Etiquette Dinner, and travel expenses to attend a conference.

Leadership Team members are paid a stipend each semester, based on their participation in a certain number of approved activities each semester. Students who participate in the minimum number earn $50 and those who participate in the maximum number earn $100.
All of the leadership students are eligible to enroll in a Strategies For College course tuition free. They also attend an informational lunch and Etiquette Dinner free of charge.

Members of the Leadership Team are encouraged to apply to give a poster presentation at the Ill/Ind Section Conference of the American Society for Engineering Education. If they are selected to present, their travel expenses are covered.

For 2007, team expenses were under $2,400.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stipends</strong></td>
<td>$800</td>
</tr>
<tr>
<td><strong>Tuition waiver</strong>*</td>
<td>120</td>
</tr>
<tr>
<td><strong>Conference</strong></td>
<td>1,200</td>
</tr>
<tr>
<td><strong>Informational Lunch</strong></td>
<td>200</td>
</tr>
<tr>
<td><strong>Etiquette Dinner</strong></td>
<td>75</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$2,395</td>
</tr>
</tbody>
</table>

*One student enrolled in the Strategies For College course

The Leadership Team was established in 2006, with support from a National Science Foundation grant. The grant is covering Leadership Team expenses through 2008. The stipends and tuition waivers are minimal expenses and sustainable beyond the grant period. For conference travel expenses, the technical instructors will likely seek alternate funding sources, potentially by developing industry partnerships.

**Success of IVCCs Team**

Technical instructors have been successful in recruiting more than twice as many students for the team as they planned, and the students have taken ownership of the team, developing and participating in more activities than the organizers envisioned. In 2006, one member of the Leadership Team received a scholarship to attend and participate in the Advanced Technological Education Principal Investigators Conference, sponsored by the National Science Foundation and American Association of Community Colleges, in Washington D.C. In 2007, two team members received awards to attend and participate in the conference.

The 2006 Leadership Team members decided to develop their team identity by adopting the name of LITE WAVE, an acronym for Leaders in Industrial
Technology Engineering Working for Advancement in Vocational Education. A member of the team developed the team logo below.

Leadership Team Publicity

Team members and team activities are widely publicized on the college website and in newspaper throughout the college district. The publicity honors team members for their accomplishments and assists in recruiting efforts for the technical programs. New team members sign a release allowing the college to use their names and photographs in promotional materials, and team members are asked to provide potential press release information.

Team Information and Forms for Organizing a Team

A variety of informational materials and forms utilized to organize, publicize and assess the IVCC Leadership Team are included in the following pages.
YOU HAVE BEEN RECOMMENDED AND SELECTED AS A POTENTIAL MEMBER FOR A

LEADERSHIP TEAM
AT IVCC

We are looking for students who are pursuing a degree related to engineering technology (CAD, Electronics/Electricity, and Manufacturing) at IVCC to assist us in mentoring and advising during the development and implementation of an IVCC curriculum project related to MIMIC and a National Science Foundation grant that will impact the CAD, electronics/electricity, and manufacturing programs.

If you join this Leadership Team, you can receive:

* Free Class – Strategies for College: SFC 1000
* Stipend ($) pay

As a member of this Leadership Team, you will be asked to participate in some of the following ways:

* Speak to a high school class about IVCC programs
* Assist with Edible Car Contest
* Participate in Career Nights and/or Job Fair
* Speak to a community organization
* Assist with MIMIC Fair (freshmen only)
* Participate in a conference including preparation of a poster
* Mentor IVCC Freshmen who are pursuing a degree in your field
* Serve as an Advisory Board member for student input in the development of curriculum
* Work on other promotional/recruiting activities

If you are interested in joining this Leadership Team, please contact: Dorene_Perez@ivcc.edu (815) 224-0221 or Jim_Gibson@ivcc.edu (815) 224-0453

PLEASE RESPOND TO JIM OR DORENE BY THURS. DEC. 1, IF YOU WANT TO JOIN THE TEAM.
MIMIC/NSF Leadership Team Commitment

I am interested in participating in the following Leadership Team activities:

_____ Speaking to a high school class about IVCC programs.
_____ Assisting with the Edible Car contest
_____ Participating in Career Nights and/or Job Fair
_____ Speaking to a community organization
_____ Assisting with the MIMIC Fair (freshmen only)
_____ Mentoring IVCC Freshmen who are pursuing a degree in your field
_____ Serving as an Advisory Board member for student input in the development of curriculum
_____ Working on other promotional/recruiting activities
_____ Starting a student chapter of a technical organization
_____ Developing a student-initiated activity

I understand that I must participate in a minimum of five Leadership Team activities in order to earn the full stipend for the semester.

____________________________ ______     ________________
(signature)     ( date)

Selection for the MIMIC/NSF Leadership Team is intended to honor students who have demonstrated leadership potential. The Leadership Team recognizes deserving students by providing additional opportunities for personal and professional growth.
LEADERSHIP TEAM PUBLICITY RELEASE & INFORMATION

Photo/Video/Statement Release

I hereby release rights to photographs, video and statements taken by Illinois Valley Community College to use in possible promotional or educational materials, including IVCC’s Web site.

Signature__________________________Date____________

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Your name, as you would like to see it in news releases:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>(please print)</td>
<td></td>
</tr>
<tr>
<td>2. Current address:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Phone numbers - Home:</td>
<td></td>
</tr>
<tr>
<td>Work: (If okay to call)</td>
<td></td>
</tr>
<tr>
<td>Cell:</td>
<td></td>
</tr>
<tr>
<td>4. Email address:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Date of birth:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman Sophomore</td>
<td></td>
</tr>
<tr>
<td>6. High School:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Year graduated:</td>
<td></td>
</tr>
<tr>
<td>7. Have you already taken Strategies For College (SFC 1000)</td>
<td></td>
</tr>
<tr>
<td>____ yes ____ no</td>
<td></td>
</tr>
<tr>
<td>If not, do you think you will enroll in the future (tuition reimbursed)</td>
<td></td>
</tr>
<tr>
<td>____ yes ____ no</td>
<td></td>
</tr>
<tr>
<td>8. Current major:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Career plans:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Current job:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Comments about leadership team (benefits, what you hope to gain from</td>
<td></td>
</tr>
<tr>
<td>it, why you joined, etc.) Continue on back if you wish.</td>
<td></td>
</tr>
</tbody>
</table>
Leadership Team Early Survey

Name __________________________________________

Have you taken Strategies For College? ____ yes  _____ currently enrolled   _____no

If YES, Strategies For College has been beneficial.

1  2  3  4  5
Strongly agree        Agree              Neutral            Disagree     Strongly disagree

PLEASE EXPLAIN: (continue on back of page if needed)

As you begin your Leadership Team experiences, how comfortable/confident do you feel about your communication skills.

1  2  3  4  5
Very               Somewhat           Neutral            Somewhat             Very
Comfortable      Comfortable                            Uncomfortable   Uncomfortable

I hope my leadership team experiences will help me to improve my communication skills.

1  2  3  4  5
Strongly agree        Agree              Neutral            Disagree     Strongly disagree

How comfortable/confident do you feel about your teamwork skills.

1  2  3  4  5
Very               Somewhat           Neutral            Somewhat             Very
Comfortable      Comfortable                            Uncomfortable   Uncomfortable

I hope my leadership team experiences will help me to improve my teamwork skills.

1  2  3  4  5
Strongly agree        Agree              Neutral            Disagree     Strongly disagree

How comfortable/confident do you feel about your decision-making skills

1  2  3  4  5
Very               Somewhat           Neutral            Somewhat             Very
Comfortable      Comfortable                            Uncomfortable   Uncomfortable

I hope my leadership team experiences will help me to improve my decision-making skills.

1  2  3  4  5
Strongly agree        Agree              Neutral            Disagree     Strongly disagree

How comfortable/confident do you feel about your ability to take initiative.

1  2  3  4  5
Very               Somewhat           Neutral            Somewhat             Very
Comfortable      Comfortable                            Uncomfortable   Uncomfortable

I hope my leadership team experiences will help me to improve my ability to take initiative.

1  2  3  4  5
Strongly agree        Agree              Neutral            Disagree     Strongly disagree
How comfortable/confident do you feel about your ability to motive people to accomplish a common goal

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Comfortable</td>
<td>Somewhat Comfortable</td>
<td>Neutral</td>
<td>Somewhat Uncomfortable</td>
<td>Very Uncomfortable</td>
<td></td>
</tr>
</tbody>
</table>

I hope my leadership team experiences will help me to improve my ability to motivate people to accomplish a common goal.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Disagree</td>
<td>Strongly disagree</td>
<td></td>
</tr>
</tbody>
</table>

Please explain

How comfortable/confident do you feel about your ability to mentor other students in your field

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Comfortable</td>
<td>Somewhat Comfortable</td>
<td>Neutral</td>
<td>Somewhat Uncomfortable</td>
<td>Very Uncomfortable</td>
<td></td>
</tr>
</tbody>
</table>

I hope my leadership team experiences will help me to improve my ability to mentor other students in my field.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Disagree</td>
<td>Strongly disagree</td>
<td></td>
</tr>
</tbody>
</table>

Any comments?
Leadership Team Followup

Name __________________________________________

1. Did you take Strategies For College? ____ yes _____no

   If YES, Strategies For College helped me with my other courses.
   ___________ ___________ ___________ ___________ ___________
   Strongly agree Agree Neutral Disagree Strongly disagree

   If YES, Strategies For College helped me in my work on the leadership track.
   ___________ ___________ ___________ ___________ ___________
   Strongly agree Agree Neutral Disagree Strongly disagree

   PLEASE EXPLAIN: (continue on back of page if needed)

2. Did you attend the Etiquette Dinner? _____ yes _____ no

   If YES, the Etiquette Dinner was beneficial to me
   ___________ ___________ ___________ ___________ ___________
   Strongly agree Agree Neutral Disagree Strongly disagree

   PLEASE EXPLAIN: (continue on back of page if needed)

3. Did you participate in one or more professional conferences as a Leadership Team member?
   ____ _ yes  ____ _ no

   If YES, participation in the conference(s) was beneficial to me.
   ___________ ___________ ___________ ___________ ___________
   Strongly agree Agree Neutral Disagree Strongly disagree

   PLEASE EXPLAIN: (continue on back of page if needed)

4. Please check any activities you participated in or organized:

   _____ Speaking to a high school class about IVCC (what school/class?) ____________________
   _____ Assisting with the Edible Car Contest for IVCC students
   _____ Assisting with the Edible Car Contest for kids
   _____ Participating in Career Night and/or Job Fair (which?) _____________________________
   _____ Speaking to a community organization (what organization?) ________________________
   _____ Assisting with the MIMIC Fair (only if you were not on a MIMIC team)

69
Participating in the ASEE Illinois/Indiana Conference poster session
Working on other promotional/recruiting activities (please explain)
Assisting / Mentoring IVCC students who are pursuing a degree in your field
Other (please explain)

5. How comfortable/confident do you feel about your communication skills at this point.

1  2  3  4  5
Very Comfortable Somewhat Comfortable Neutral Uncomfortable Somewhat Comfortable Very
Uncomfortable Uncomfortable

6. My leadership team experiences helped me to improve my communication skills.

1  2  3  4  5
Strongly agree Agree Neutral Disagree Strongly disagree

7. How comfortable/confident do you feel about your teamwork skills.

1  2  3  4  5
Very Comfortable Somewhat Comfortable Neutral Uncomfortable Somewhat Comfortable Very
Uncomfortable Uncomfortable

8. My leadership team experiences helped me to improve my teamwork skills.

1  2  3  4  5
Strongly agree Agree Neutral Disagree Strongly disagree

9. How comfortable/confident do you feel about your decision-making skills

1  2  3  4  5
Very Comfortable Somewhat Comfortable Neutral Uncomfortable Somewhat Comfortable Very
Uncomfortable Uncomfortable

10. My leadership team experiences helped me to improve my decision-making skills.

1  2  3  4  5
Strongly agree Agree Neutral Disagree Strongly disagree

11. How comfortable/confident do you feel about your ability to take initiative.

1  2  3  4  5
Very Comfortable Somewhat Comfortable Neutral Uncomfortable Somewhat Comfortable Very
Uncomfortable Uncomfortable

12. My leadership team experiences helped me to improve my ability to take initiative.

1  2  3  4  5
Strongly agree Agree Neutral Disagree Strongly disagree

13. How comfortable/confident do you feel about your ability to motive people to accomplish a
common goal

1  2  3  4  5
Very Comfortable Somewhat Comfortable Neutral Uncomfortable Somewhat Comfortable Very
Uncomfortable Uncomfortable

70
14. My leadership team experiences helped me to improve my ability to motivate people to accomplish a common goal.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Disagree</td>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

15. How comfortable/confident do you feel about your ability to mentor other students in your field

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Comfortable</td>
<td>Somewhat Comfortable</td>
<td>Neutral</td>
<td>Somewhat Uncomfortable</td>
<td>Very Uncomfortable</td>
</tr>
</tbody>
</table>

16. My leadership team experiences helped me to improve my ability to mentor other students in my field.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Disagree</td>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

17. My experiences as a leadership student have been beneficial to me.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Disagree</td>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

18. What activities do you suggest for future leadership students?

19. Any other suggestions or comments?
Survey of Academic Assistance (given to students in classes with Leadership Team members)

1. Your program: _____ engineering, CAD _____ electronics

2. Are you currently
   _____ a freshman _____ a sophomore

3. In the past year, did you ask for any help with the classes or labs in your field from any of the following students, who are members of the Leadership Team:
   Engineering/ engineering design   Electronics
   (list them)

   (See list in #4 below for examples of some of the type of help you might have requested)

   _____ yes (If yes, please continue) _____ no (If no, skip to question #7)

4. If yes, what types of help did you request?

   _____ questions about class content, assignments or the textbook

   _____ help with computer programs/software in your field (such as Auto CAD, Solid Works, Multi Sim, Rockwell Automated Challenge, etc.)

   _____ help with general purpose computer programs (such as Word, Power Point or Internet searches)

   _____ help with equipment/technology specific to your field (such as rapid prototyping, component identification, PLC, oscilloscopes, meters, bread boarding, etc.)

   _____ help in preparing working drawings, assemblies, or detail drawings

   _____ help with communication assignments (such as oral presentations or written reports)
5. How often did you receive the help you needed from any of those students?

Every time Most of the time Some of the time Seldom Never
10 9 8 7 6 5 4 3 2 1

Comments:

6. Please rate the attitude of the leadership team students from whom you requested help:

Very positive & tried to help Somewhat positive & somewhat tried Somewhat Negative & not especially helpful Very negative & not at all helpful

Comments:

7. If you did NOT request help from any of the listed students, please indicate why you didn’t:

_____ did not need help

_____ did not know those students were supposed to provide help

_____ other (please explain) ________________________________

Comments:

8. Suggestions for future leadership teams:
Leadership Team Member Survey – Academic Assistance

1. Your program: _____ engineering, CAD _____ electronics

2. In the past year, did you provide any assistance to other students in your classes or while you were working on your projects in the lab? (See list in #3 below for examples of some of the types of assistance you might have provided)

   _____ yes   _____ no

3. If yes, please indicate the types of assistance you have provided:

   _____ answering questions about class content, general questions about assignments or the textbook

   _____ help with computer programs/software in your field (such as Auto CAD, Solid Works, Multi Sim, Rockwell Automated Challenge, etc.)

   _____ help with general purpose computer programs (such as Word, Power Point or Internet searches)

   _____ help with equipment/technology specific to your field (such as rapid prototyping, component identification, PLC oscilloscopes, meters, bread boarding, etc.)

   _____ help in preparing working drawings, assemblies, or detail drawings

   _____ help with communication assignments (such as oral presentations or written reports)

   _____ help with course material outside of your field

   _____ other (please explain) _________________________________
4. How often were you able to provide the help the student(s) needed?

   Every time  Most of the time  Some of the time  Seldom  Never
   10         9           8           7           6           5       4        3        2         1

   Comments:

5. How comfortable were you in providing that help?

   Very Comfortable  Somewhat Comfortable  Somewhat Uncomfortable  Very Uncomfortable

   Comments:

6. My leadership team experiences provided me with the guidance/training I needed to provide assistance to other students.

   Strongly Agree  Agree  Disagree  Strongly Disagree

   Comments:

7. Suggestions for future leadership teams:
Steps in Establishing a Team

The steps below will guide you in establishing a leadership team:

1. Decide the goals for a student leadership team.

2. List the instructors and areas or disciplines that might participate.

3. Secure approval from administrative staff and recruit the instructors.

4. Determine types of activities.

5. Set a budget.
   - What funds are necessary for start up?
   - Instructor/staff stipends to organize/supervise the team and to provide students with additional training to be successful on the team?
   - Student stipends?
   - Training activities?
   - Cost for team activities (conferences etc.)
   - Other?

6. Determine potential funding sources
   - Grants
   - Donations
   - Fundraising

7. Acquire or plan for funding

Do you have an upcoming meeting or in-service session in which staff members could brainstorm ideas for a leadership team?
Once these planning issues are addressed, organization begins:

- Providing participating instructors with planning time together
- Determining criteria for picking team members and deciding who will participate in the selection process
- Setting student requirements
  - Role they will play at your college/school
  - Responsibilities they can reasonably assume
  - Who they will serve
  - Time commitment the team might demand
  - How many you hope to recruit
- Deciding how to invite students to the team
- Planning and scheduling a kickoff event for team members
- Determining potential training needs of participating students
- Organizing and scheduling those trainings
- Determining and providing communication channels for the student team (e-mail, discussion board?)
- Selecting, adapting, or developing forms for the team to use for approval at various stages
- Designing assessments of student performance
- Planning recognition events

Once a team is organized, Leadership Team members should participate in reviewing and revising the team organization and in deciding, organizing and planning their training and activities.
Brainstorming Prompt for Leadership Team Ideas

Review the information about the Leadership Team (LITE WAVE) at Illinois Valley Community College, then brainstorm on the questions listed below.

**Brainstorming questions**

1. Who might be on your student team?

2. What would the goal(s) or purpose(s) of your team be?

3. What activities would be useful to the team members?

4. What activities would be useful to other students, your college/school or your department?

5. What responsibilities would a leadership student have?

6. What might your kickoff event be?

7. Any ideas for funding sources?
Additional Information and Resources

Similar Multi-Disciplinary College Projects

At community colleges, projects similar to MIMIC (multi-disciplinary, entrepreneurial projects that include engineering and business students) are either uncommon or not well publicized. Some community college students do participate in a university project. (Liou, et al., 2003)

At universities, entrepreneurial engineering team projects are relatively common, but they do not quite match the MIMIC model. Few of the projects include business students on the teams, and for some that do, the business members are MBA students. The list below references a number of universities with multi-disciplinary engineering projects, identifies some significant characteristics of those projects, and provides sources for further information.

- Florida Institute of Technology: Projects include facilitating start-up ventures (Ports, et al., 2005)
- Lehigh University: Projects include industry partners and undergraduate business students (Ochs, et al., 2001)
- Massachusetts Institute of Technology: Projects culminate with a business plan competition (MIT $50k Entrepreneurship Competition, n.d.)
- Michigan Technological University: Projects include industry partners (Raber and Moore, 2005) and teams work together longer than one year (The Enterprise Program, n.d.)
- Pennsylvania State University: Projects are part of an engineering entrepreneurship program (Bilen et al., 2005)
- Rowan University: Teams work together longer than one year (Engineering Clinics, n.d.)
- Stanford University: Projects include facilitating start-up ventures (Stanford Technology Ventures Program, n.d.)
- University of Florida: Teams include MBA students (Stanfill, et al., 2004)
- University of Maryland: Prospective entrepreneurs live together in an incubator environment (Barbe, et al., 2001)
- University of Missouri-Columbia: Teams include undergraduate business students and a high tech manufacturing facility is available for production (Zayas-Castro, et al., 2002)
- University of Nevada-Reno: Teams include MBA students (Wang and Kleppe, 2001)

Further Information About the MIMIC Project

For further information on the MIMIC project...

See the MIMIC web site at http://www.ivcc.edu/mimic
See the MIMIC Student Guidebook:


See the following peer-reviewed journal articles about the MIMIC project:


Contact:

- Dorene Perez, Program Coordinator of Computer Aided Design/Computer Aided Engineering, originator of MIMIC, and PI of NSF grant #0501885: dorene_perez@ivcc.edu
- Jim Gibson, Program Coordinator of Electronics, MIMIC instructor and co-PI of NSF grant #0501885: jim_gibson@ivcc.edu
- Rose Marie Lynch, Communications Instructor and co-PI of NSF grant #0501885: rosemarie_lynch@ivcc.edu
Further Information About the Leadership Team

For further information on the Leadership Team

See the MIMIC/NSF grant web site at http://www.ivcc.edu/mimic/nsf/leadership

References


Illinois Valley Community College

challenges

YOU

to

Make Industry Meaningful In College