

Spring



CAPSTONE



Making Industry Meaningful In College

Guide Book

MIMIC STUDENT GUIDE BOOK

MAKING INDUSTRY MEANINGFUL IN COLLEGE

MIMIC Student Guide Book



Illinois Valley Community College
815 North Orlando Smith Road
Oglesby, IL 61348
Phone 815 224 2720 • Fax 815 224 3033
<http://www.ivcc.edu/mimic>

Introduction

Congratulations!

As a student in MIMIC, you are a part of an award-winning program at IVCC. Making Industry Meaningful In College is a nationally recognized curriculum project that places students from electronics, engineering design, and a variety of business fields in companies to select, design, manufacture, and market a product. Students from Integrated Business Operations, Engineering Design Projects, and Motors and Controls II participate in MIMIC.

The goal of this project is to expose you to real life experiences that will better prepare you for the world of work. Since its inception in 1995, this program has been training students for the workplace by developing essential workplace skills. MIMIC gives you the opportunity to use creative thinking skills, teamwork, and communication skills by creating a true life situation mimicking an industry. You will be joined by students from different disciplines and you will use your technical skills and people skills to successfully design and sell a product on campus.

You will begin with company meetings and brainstorming to decide how to produce and market your product. Then, marketing students will conduct a marketing survey, analyze the results, and make recommendations. After company approval, engineering students will refine the design of the product and the electronics and engineering students will produce a prototype. During this time, accounting students will prepare budgets and do cost accounting, information technology students will handle company correspondence, and business students will organize the MIMC Fair, where the products will be sold. After prototype approval, production will begin and marketing students will advertise and sell the product.

You and students in the other disciplines will work on the project at different times throughout the semester. Your classes, however, are scheduled at a common time to allow you to meet in your companies as needed. At some time during the semester, depending on your discipline, you will present an oral report about your portion of the project at meetings attended by all MIMIC participants and by members of the college administration and the teaching staff.

Welcome to MIMIC!

MIMIC Instructors: *Dorene Data*
Rick Serafini

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Basics of the MIMIC project

Making Industry Meaningful In College for you.

The purpose of the MIMIC project is to give you an opportunity to experience the environment of the workplace in a classroom setting. You will be assigned to a company which includes students from other fields of study. This format will give you an opportunity to work with people of different backgrounds and personalities.

Once your company is formed, you will follow procedures that mimic what would happen in typical “real world” companies:

1. Your company will meet to review the product your company is assigned to make.
 2. Your company will decide on a corporate name.
 3. Your company will meet for weekly business meetings (or more often if necessary) to communicate ideas, solve problems and plan the project. Business attire must be worn to all company meetings and oral presentation.
 4. You will complete individual classroom assignments pertaining to the project.
 5. You will make an oral presentation to the group concerning your part of the project.
 6. You will participate in the production of the product.
 7. You will participate in the MIMIC Fair. The MIMIC fair is the ultimate goal, where you will display and sell your products to students and staff of IVCC.
-

What classes participate in MIMIC?

BUS 2260 – Integrated Business Operations

Integrated Business Operations offers students credit as they form and run a MIMIC company, including organization of the MIMIC Fair, accounting functions, marketing, and company correspondence. The course is required for sophomores in business and accounting Associate in Applied Science Programs.

Job Description – Accountant Position

RESPONSIBILITY AND AUTHORITY

The responsibilities of this student within the MIMIC Company are; (1) to prepare the budget for the MIMIC project, (2) to maintain all accounting records of the company, (3) to participate in the weekly reporting requirements for their MIMIC Company, (4) to support production efforts of the company, (5) to account for all cash and inventory transactions at the MIMIC Fair, and (6) to take the leadership position in coordinating the Accounting Presentation to the MIMIC group.

Company Budget – This student is responsible for working with all members of the company to develop the MIMIC Company budget. This student will have the responsibility to gather any data necessary to compile an accurate budget and submit the budget to the MIMIC business instructor in an Excel format.

Maintain Accounting Records – This student will be required to authorize and process all expenditures for all materials for all members of their MIMIC Company. In carrying out this responsibility, this student will need to insure that only authorized expenditures are made. In addition, this student is responsible for insuring that all employees of the company or any instructor that expends funds for the company are properly reimbursed. In carrying out this responsibility, an Excel spreadsheet will be maintained to track all expenditures. Finally, this student is responsible for insuring that all expenditures made through IVCC follow procedures established by the IVCC Controller's Office concerning purchase orders and check disbursements.

Participate in Preparation of Weekly Company Reports – This student will be required to supply the necessary accounting information in order to help complete the weekly Company Report. The student will be required to participate to whatever extent is necessary to complete the requirements of the Weekly Company Report.

Support Company Production – This student will be required to participate in production efforts of the company.

Cash and Inventory Transactions at the MIMIC Fair – This student will need to track and account for all cash and inventory transactions at the MIMIC Fair.

Leadership Position in Accounting Presentation – This student is responsible for coordinating activities of all company employees in preparing the Accounting Presentation to the MIMIC group.

LIMITATIONS ON AUTHORITY

While this student does have input on such items as product design and marketing, ultimate authority for product design rests with the Engineering students, and marketing issues relating to the product and the MIMIC fair rest with the Marketing students.

Job Description – Business Management Position

RESPONSIBILITY AND AUTHORITY

The responsibilities of this student within the MIMIC Company are; (1) to participate in the weekly reporting requirements for their MIMIC Company, (2) to support production efforts of the company and (3) to take the leadership position in coordinating all communication between the Accounting, Marketing, Engineering, and Electrician students.

Participate in Preparation of Weekly Company Reports – This student will be required to supply the necessary information in order to help complete the weekly Company Report. This position will be required to participate to whatever extent is necessary to complete the requirements of the Company Report.

Support Company Production – This student will be required to participate in production efforts of the company.

Leadership Position in Communication Between Business and Engineering/Electrician Employees – This student is responsible for facilitating communication between all employees of the MIMIC Company. This student will be the point person for overseeing the tasks assigned to the Accounting and Marketing students.

LIMITATIONS ON AUTHORITY

While this position does have input on such items as product design, accounting and marketing, ultimate authority for product design rests with the Engineering students. This student will have authority to oversee and insure that all business functions of the company are being met.

Job Description – Marketing Position

RESPONSIBILITY AND AUTHORITY

The responsibilities of this student within the MIMIC company are; (1) to prepare the marketing survey for the MIMIC project, (2) to work with the MIMIC Fair Marketing Company to coordinate the marketing efforts for the Company at the Fair, (3) to participate in the weekly reporting requirements for their MIMIC Company, (4) to support production efforts of the company and (5) to take the leadership position in coordinating the Marketing Presentation to the MIMIC group.

Marketing Survey – This student is responsible for working with all members of the company to develop the marketing survey for the company. This student will have the responsibility to gather any data necessary to compile an accurate survey.

Coordinate Marketing Efforts for MIMIC Fair – This student will be required to work with the Marketing Company to develop a marketing concept for the fair. This student will be responsible for negotiating with the Marketing Company to determine the necessary supplies and eventual fee that will be allocated to their company for use of marketing materials. This student will be required to work with the Accountant to supply the necessary cost information for all marketing efforts.

Participate in Preparation of Weekly Company Reports – This student will be required to supply the necessary marketing information in order to help complete the weekly Company Report. This student will be required to participate to whatever extent is necessary to complete the requirements of the Weekly Company Report.

Support Company Production – This student will be required to participate in production efforts of the company.

Leadership Position in Marketing Presentation – This student is responsible for coordinating activities of all company employees in preparing the Marketing Presentation to the MIMIC group.

LIMITATIONS ON AUTHORITY

While this position does have input on such items as product design and accounting, ultimate authority for product design rests with the Engineering students and accounting issues rest with the accounting students.

CAD 2208 - Engineering Design Projects

Engineering Design Projects is a capstone course in engineering that enables a sophomore CAD/CAE student to use their skills to successfully design a product for production. Students produce engineering drawings for production and supervise production as project managers.

Job Description – Engineering Designer Position (Product Companies)

RESPONSIBILITY AND AUTHORITY

The responsibilities of this student within the MIMIC Company are;

Engineer and Design product - The design engineer/technologist is distinguished from the designer/drafter by virtue of the fact that a design engineer takes care of the total system as well as inner workings/engineering of a design. While industrial designers may be responsible for the conceptual aesthetic and ergonomic aspects of a design, the design engineer usually works with the team to develop the conceptual, preliminary and detail design and the most critical parts. He/she works with business, electrical, accounting and marketing to develop the product concept and specifications, and he/she may direct the design effort from that point. Products are usually designed with input from a number of sources such as marketing, manufacturing, purchasing, tool making and packaging engineering. In addition design engineers/technologists deal with much more complex technological and scientific systems. In some cases the design may be already decided. In others, a few changes may be needed.

Act as Project Manager – Project management is a combination of steps and techniques for keeping budget and schedule in line. It is the process of combining systems, techniques, and people to complete a project within established goals of time, money, and quality.

Establish a Work Plan – With the aid of company team members this student will help (1) identify major tasks (2) Organize in logical sequence (3) Identify resources (4) Communicate work to be done (5) Organize to milestones.

Oversee Prototype of Product - A model of the product is created and reviewed. Prototypes are usually functional and non-functional. This stage is where design flaws are found and corrected, and manufacturing methods and packaging are developed.

Be a leader – To be a leader, you don't have to be a CEO. A leader is someone that others consistently want to follow for new trends and ideas. A fancy title can make that happen

temporarily, at least, but a true leader inspires others not only to follow but to become leaders themselves.

LIMITATIONS ON AUTHORITY

While this position does have input on such items as business, accounting and marketing, ultimate authority for product design rests with the Engineering students. This student will have authority to oversee and insure that all engineering and manufacturing components and functions of the company are being met.

All Positions

Solve Problems- The first step towards becoming a leader is to look around and find ways to make the world a better place. Observe your surroundings and listen to people. How can you help? Discover what your talents are, develop them, and focus on applying them towards making a difference. Problems are not always easy to identify or define. Solutions should always be win/win. The solutions won't always be creative or cutting edge; sometimes they're the simplest things.

In addition to those general requirements, students must meet requirements set by their individual instructors. Since MIMIC is a project within specific courses, students must also meet requirements for those courses including assignments not directly related to the MIMIC project.

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.

Why do students from with other classes participate?

The mix of classes creates an environment of a manufacturing company. The MIMIC project explores how the various disciplines (engineering, manufacturing and business) work together in a simulation of a real world company.



A MIMIC team member advertises the MIMIC Fair by painting the fair logo on the window near the main entrance to the college.

When does MIMIC meet?

MIMIC-related classes meet on Monday and Wednesday starting at 1:00 p.m. Classes participating in MIMIC have been scheduled at a common time so that all classes can meet together when necessary.

The first team meeting (see schedule) will last for the entire class period and will include a presentation from the MIMIC instructors.

This meeting will also include a team building exercise and a question and answer period for you. If time permits, you will begin reviewing the product you will be producing for the semester. You will also discuss how to keep in communication with each other for the semester.



Team members discuss progress at a weekly company meeting.

At the second meeting your team will continue discussion of your product.

All company meetings will be on Wednesdays for the remainder of the semester barring unforeseen circumstances. Changes will be announced.

Individual companies will have individual needs. Circumstances or problems may arise that make it necessary for your company to meet more often than scheduled. Your company will decide on times and places to meet to resolve issues as needed.

You will communicate with your team members. You will have an email address assigned to you. Use of available technologies for discussions between members of your company and the entire MIMIC group are strongly recommended (i.e. Blackboard, Facebook, Instant Messaging ...).

Where does MIMIC meet?

The first MIMIC meeting will be announced at the first class meeting. Individual company meetings will be in various assigned rooms in building CTC. Any room changes will be announced by your instructors.

What is expected of a MIMIC student?

As a participant in MIMIC, you must meet certain requirements that are essential in being part of the “team.” Knowing what is expected of you as a MIMIC student should lessen your anxiety and help you participate more effectively. The teamwork requirements you must meet include the following:

MIMIC creates real life situations in a classroom setting.

1. You are expected to attend company meetings.
2. You are expected to participate in discussions about the best approach to produce, market, and price your product. You are expected to work with all of your team members to overcome problems.
3. You are expected to give an oral presentation to the MIMIC group. Depending on the size of your class, you may be giving an individual presentation or presenting as part of a team of two or three.
4. You are expected to work in the production of your products. One week in the MIMIC schedule is for production.
5. You are expected to facilitate at least one company meeting. As facilitator, you will set the agenda for the meeting and see that the meeting is conducted in an orderly manner. Engineering Design students will conduct the meetings during the design phase of the project. Electronics students will conduct the meetings during the prototyping phase of the project. Business and Marketing students will conduct the meetings during the weeks before the fair.
6. You are expected to participate in the MIMIC Fair.
7. You are expected to attend the final meeting and celebration.



MIMIC students celebrate the completion of the project with lunch and a presentation by a speaker.

Section**2**

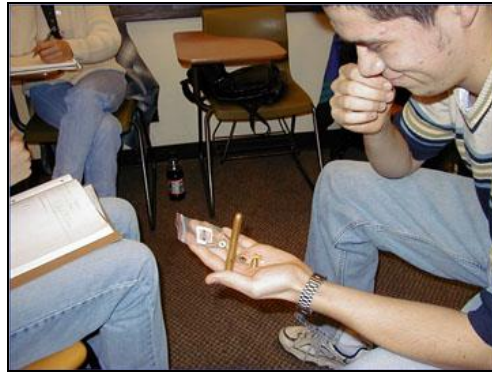
What should you expect from MIMIC?

The goal of MIMIC is to prepare you to enter the workplace. By creating an industrial company structure within the classroom, MIMIC allows you to sharpen your technical skills and develop essential workplace skills including the following:

- Oral communication skills
- Arithmetic/computation skills
- Written communication skills
- Responsibility/goal setting
- Self-management skills
- Alcohol and drug free
- Reasoning /using logic
- Problem solving skills
- Reading and understanding non-technical and technical materials
- Knowing how to learn
- Critical thinking skills
- Life application skills (ethics, civic responsibility)
- Technological skills
- Leadership skills
- Decision-making
- Teamwork skills
- Listening skills
- Self-esteem

These 18 skills were based on skills endorsed by Tech Prep, a federal program funded through Carl Perkins legislation. Tech Prep programs were encouraged to combine academic and technical education to prepare students to enter and succeed in careers.

MIMIC was originally sponsored by IVCC's Tech Prep Team and was funded primarily by grants provided through the Starved Rock Associates for Vocational and Technical Education and IVCC Consortium. For 2005 through 2008, some funding for the project was from a National Science Foundation grant. Under the NSF grant, MIMIC has become the focal point of the two-year technical programs in engineering design, electronics and business. Present day funding is partially funded by a PERKINS grants, a national initiative for career and technical programs.



Team members apply problem solving and critical thinking skills to a product problem.

Field Trip Opportunities

You are likely to have an opportunity to participate in one or more field trips, with all MIMIC students or just with students in your field. Field trips will be announced by your instructor.



MIMIC students board the bus to return to campus carrying samples distributed at the National Design Engineering Show in Chicago.

MIMIC Schedule

The following is a tentative

- Week 1 First day of classes for MIMIC students
- Week 2 Team meetings with entire MIMIC group
- Week 3 Beginning of weekly company meetings

There will be company meetings every Wednesday throughout the semester unless otherwise announced. Before team meetings, there may be either a team building or a quality training activity.

- Week 7 Edible Car Contest

- Week 8 Engineering presentations given to entire MIMIC group
- Week 9 Spring Break

- Week 11-12 Production weeks

Finish production and do a quality review

- Week 14 MIMIC Fair
- Week 15 Business Presentations to entire MIMIC group
- Week 16 Final meeting and celebration (attendance required)

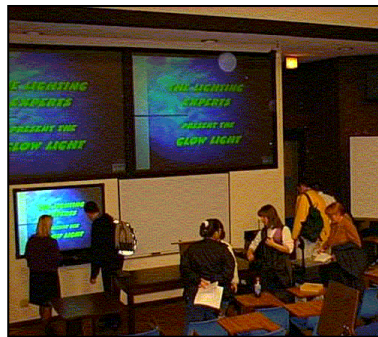
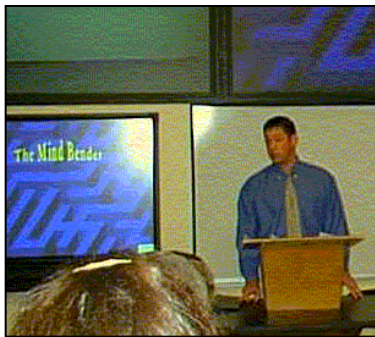


MIMIC instructors and college administrators attend oral presentations by student team members.

Oral Presentations

You will participate in an oral presentation.

You will present your portion of the project to the entire MIMIC group at a time in the semester determined by your discipline; for example, presentations by engineering design students are early in the semester and presentations by marketing, accounting and business students are late in the semester. Faculty, staff, administration and counselors are also invited to attend. You will be instructed in the use of software and equipment to facilitate a successful presentation.



MIMIC students give oral presentations about their portions of the project utilizing Power Point.

Production

You will contribute to the manufacture of your company products.

One week in your class has been scheduled for manufacturing of products. All of your team members are expected to contribute to the manufacturing week. Each team will recommend the number of products they believe they should manufacture. Instructors will approve the number of products to be manufactured by each team.



Team members from all career fields participate in production.

The MIMIC Fair



The Big Day!

For 13 weeks, your team will work to meet its goal: selling your wares at the fair. At the fair, your finished product will be displayed for everyone on campus to see and purchase.



At left, customers admire the interesting display of the Turn On Company. All companies sold out their products at the 2001 Fair, a record-breaking event for MIMIC. Five companies contributed 30 products each to the fair. The theme of the fair, illustrated by the logo above, was “Plug Into The Future.”

Organizing and publicizing the MIMIC Fair is the primary responsibility of BUS 2260 students, but all of you are required to participate in the fair. Job duties may include setting up booths and displays, staffing the booths for sales, and tearing down displays for clean up. Teamwork is very important throughout the project, which includes the MIMIC Fair.

Team members await the arrival of customers as the MIMIC Fair booths open for business.



Tips from past students

“Work hard, work as a team and leave no one behind and everyone will benefit from a real-life program that truly mimics the real working world.”

- Jeff Grabill

“Try to be a leader...”

- Scott Heyers

“Listen to your instructors...”

- Tiffany Saeturn

“Stay ahead of the game...if you have a deadline see if you can get it done a week ahead of time... in the long run you will be much happier.”

- Derik Faber

“Start early, make decisions early...be there for the meetings and give ideas because you don't want to be locked into doing something you don't really want to do...don't pick anything too complicated...”

- Matt Stickel

“Be prepared; expect the unexpected.”

- Nolan Carey



“...the hardest thing is getting everything done, lined up in order and what steps to do it in...”

- Chad Votaw

MIMIC students
train in teamwork

Visit the MIMIC Web Site: <http://www.ivcc.edu/mimic>



MIMIC Fair products (on left above) at a table at the 2001 Fair and in a display case in the main lobby (above). At left, therapeutic massage students provide chair massages at the 2005 Fair.



Sample forms

The following pages include sample forms. These or similar forms will be utilized by some members of your team during the project.



AGENDA

Team Name:

Meeting Date:

AGENDA ITEM	PERSON	TIME	RESULTS NEEDED
Attendance		min.	
		min.	
		min.	
		min.	
		min.	
Agenda items for next meeting		min.	

P:/MIMIC/Agenda1_07.doc

WORKSHEET FOR TEAM MEETING NOTES

The list below suggests information that should be recorded about a meeting. Use this information to prepare a summary for team members, your instructor and team records.

Date _____ Time _____ Place _____

Attending:

Absent:

1. Major decisions group reached:

2. Major issues discussed with no decision made:

3. Other topics of discussion

4. Responsibilities assigned or assumed (or reminders announced):

5. Deadlines or times assigned (or reminders announced):

6. News on progress (or lack of it) on project(s): Use person's name and report what progress they have made or not made on their responsibilities. Be specific.

_____ reported....
(person's name)

7. Problems encountered:

8. Next meeting scheduled:

9. Agenda items for that meeting:

Meeting Evaluation

Name _____

Meeting Date _____

Company Number _____

Company Name _____

Meeting Administration Not at all To a great extent

Was the room adequate? 1 2 3 4 5

Did the meeting start on time? 1 2 3 4 5

Who was late?

Were the appropriate people present? 1 2 3 4 5

If not who was absent:

Was the agenda followed? 1 2 3 4 5

Did the meeting end on time? 1 2 3 4 5

Comments: _____

Group Spirit

Did everyone participate? 1 2 3 4 5

Was the meeting free from disruptions? 1 2 3 4 5

Was there a healthy group spirit? 1 2 3 4 5

Comments: _____

Effectiveness

Was the meeting a good use of time? 1 2 3 4 5

Did you accomplish your goals? 1 2 3 4 5

Comments: _____

Give a brief synopsis of the meeting:

Name of Facilitator _____

Peer Performance Review

Employee Information

Name Of Team Member Being Reviewed:

Your name (optional)

Date:

Review Period: to

Review Guidelines

Complete this peer review, using the following scale:

NA = Not Applicable

1 = Unsatisfactory

2 = Marginal

3 = Meets Requirements

4 = Exceeds Requirements

5 = Exceptional

Evaluation

	(5) = Exceptional	(4) = Exceeds Requirements	(3) = Meets Requirements	(2) = Marginal	(1) = Unsatisfactory
Demonstrates Required Job Skills And Knowledge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has The Ability To Learn And Use New Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Uses Resources Available In An Effective Manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Responds Effectively To Assigned Responsibilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meets Attendance Requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listens To Direction From Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Takes Responsibility For Actions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Honors Commitments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates Problem Solving Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Offers Constructive Suggestions For Improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generates Creative Ideas And Solutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meets Challenges Head On	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demonstrates Innovative Thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments:

Provided by HR.com

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 _____

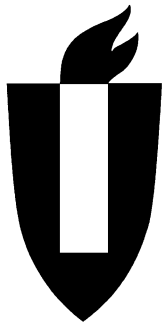
Intellectual Property Agreement

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.

**ILLINOIS VALLEY
COMMUNITY COLLEGE**

Signature _____ Date _____