

# 2016 Exhibition of School Planning and Architecture

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## Missouri Innovation Campus

Category: Design Concept

Lee's Summit School District, University of Central Missouri, and  
Metropolitan Community Colleges

Lee's Summit, Missouri

# Missouri Innovation Campus





# Missouri Innovation Campus

## Site Plan



# Missouri Innovation Campus

## Context | Area Plan



Central to the Lee's Summit School District and UCM, the site is easily accessed from neighboring highways. Adjacent development (dashed outline) will be retail and office, offering MIC an abundance of off-site amenity services.

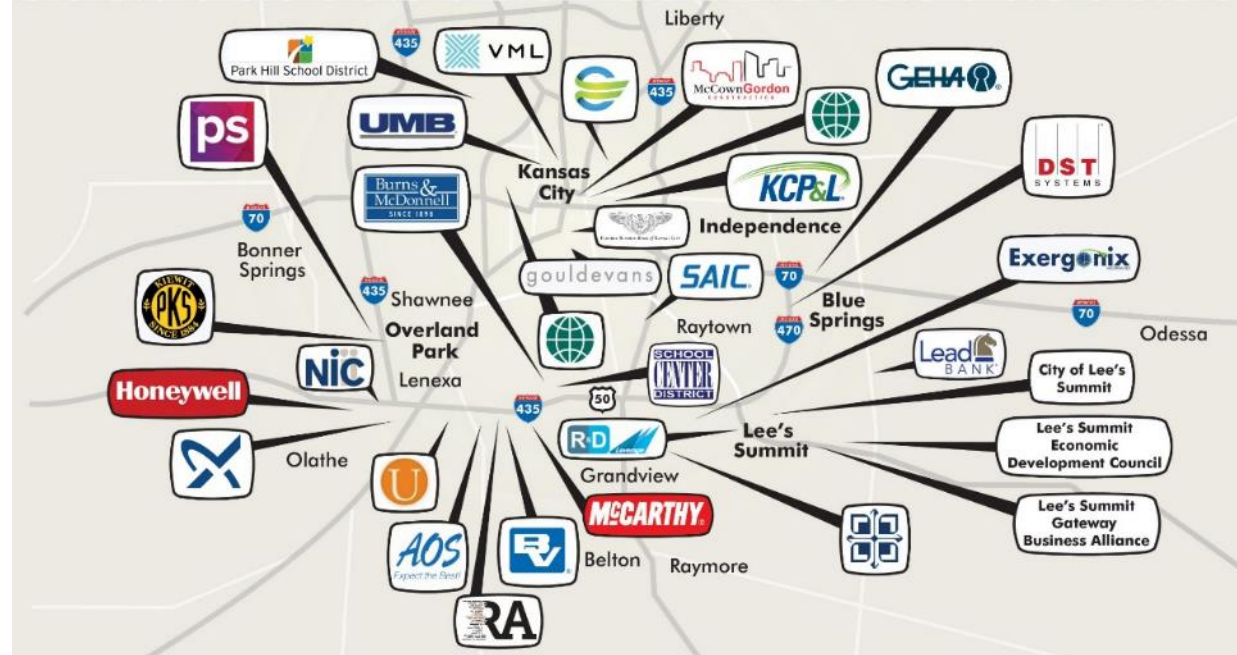


# A Broader Learning Community Served

## Community Environment – A Regional Partnership:

The Missouri Innovation Campus (MIC) is a shared-use facility (grades 10-16) comprised of partnerships among the University of Central Missouri (UCM), Lee's Summit School District (LSR7), Metropolitan Community Colleges, and regional businesses to create the nation's most accelerated degree program.

Area business partners help craft the curriculum as well as hosting internships that begin during students' junior year of high school. These active partnerships push the learning culture toward one that develops genuine workplace skills and professionalism. The MIC program is a solution to better align graduates' skill sets with the needs of businesses, while striving to address the rising concerns of 21<sup>st</sup>-century students demanding to graduate earlier with less college debt and higher job placement rates.

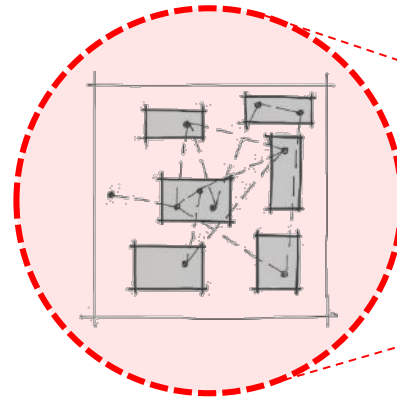


Regional businesses make up a critical part of the MIC students' learning requirements with three-year internships.

### Student Life Experience

#### Typical High School or College Campus

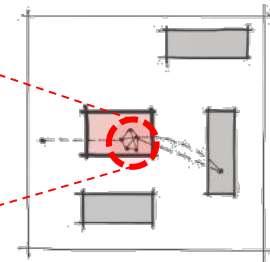
At a typical high school or college, students travel across a large campus of multiple buildings; the intensity of interactions with peers is very scattered and decentralized.



### Student Life Experience

#### Missouri Innovation Campus

Students spend most of their time within a highly concentrated set of interactions alongside like-minded peers. Occasionally, they travel to neighboring facilities for internships, supply runs, or to seek a "third place."



# A Professional Learning Community

## Community Environment – Community Engagement:

Business partners and community members are encouraged to be active participants in the MIC programs. Touch-down work spaces are provided for mentors, a presentation area in the Central Commons hosts guest speakers and student TED Talks, and visiting faculty office space is provided for partners from the various institutions.



*"This is exactly the kind of innovation we need when it comes to college costs. And I want the entire country to take a look at what's being done here!"*  
President Barack Obama





# An Innovative Learning Community

## Learning Environment:

Inspired by the needs and requests of MIC's business partners, the learning spaces reflect conditions in many contemporary workplace environments.

An "Ideation Commons" serves as the heart of each department. The design of the overall "Departmental Quad" supports free-flowing, self-directed learning; learning anytime, anywhere. The flexible nature of the spaces and furnishings shifts easily among various learning modes – driven by a model of self-directed and project-based learning (PBL). The end goal is to support development of competencies and workplace skills so students can hit the ground running upon graduation.

Operable "walls" along the edges of the commons permit high school labs to be secured at night while the adjacent learning studios are left open and shared by UCM's evening programs.



*Learning Studios (left) and Labs (right) allow seamless flow across the central "Ideation Commons." The "Front Porch" of each department (foreground) offers an inviting entry to the commons featuring student projects on display and serving as a "trailhead" for facility tours guided by student ambassadors.*



*The "Back Porch" to each commons is a place for communal gathering, a place to eat meals together, mentor among students and faculty, and hold informal meetings.*

*"This place becomes an incubator for entrepreneurs."  
Dr. Ambrose, President, UCM*

# An Innovative Learning Community

## Learning Environment:

The flexible learning environments are inspired both by the input of business partners as well as the institutional leadership that is committed to reinventing the K-16 learning model.

Flex Open Learning Studios are designed to support self-directed learning and support a wide range of learning modes ranging from individual to team-based activities. The palette of postures supports a wide range of preferences among individual learners. Furniture is all mobile. Technology is ubiquitous yet can easily be set aside when not in use, opening up space for analog work. The very nature of these spaces makes traditional instruction difficult, therefore forcing the learning model to be better tailored to workplace models.

*"This program offers a new reform for higher ed. Competencies-based learning is how we need to envision education 10 years from now!"*

Dr. Ambrose, President, UCM





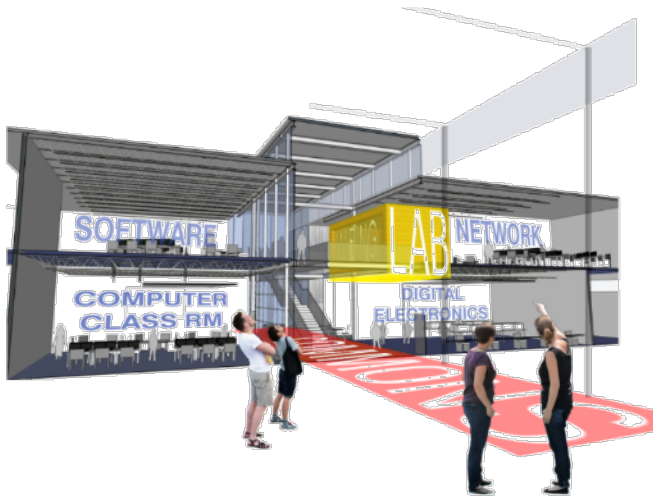
# A Shared Central Campus Designed for Change

**Physical Environment:** MIC's new campus is a shared-use facility; Lee's Summit School District and University of Central Missouri are co-located in one building. All students utilize the same set of entrances with security managed at the central Info Desk.

The exterior design is purposefully simple – a "Learning Warehouse" that easily adapts to future program needs. Even the building envelope is modular; metal panels and windows are of the dimensions enabling future relocation of windows based on interior programmatic needs. Clerestories drop natural daylight into the interior spaces.



*The stainless steel metal cladding changes appearance over the course of the day and across the seasons; its ephemeral presence speaks to the evolving nature of the programs taught within.*



*Feature programs are on display in the Central Commons.*

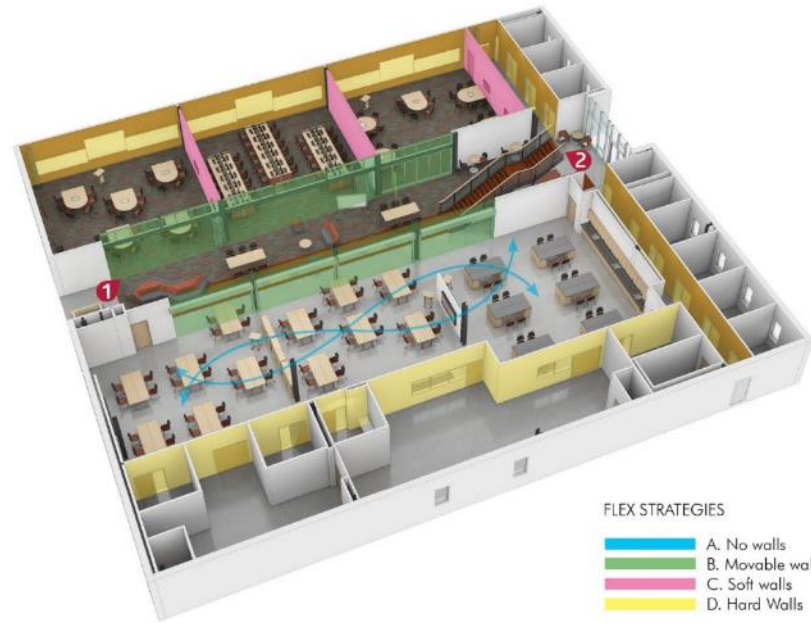
# Flexible Kit-of-Parts

## Physical Environment – An Adaptive “Learning Warehouse”:

Each level of the building is divided into four quadrants. These “Academic Quads” are designed to support future changes in educational delivery methods, keeping future change in mind:

Key Legend (Plan Above Right):

- A. **No Walls:** removed entirely where evidence indicates a need for more cross-collaboration between labs
- B. **Movable Walls:** where needed for shared use between Lee’s Summit School District (day schedule) and UCM (evening schedule); support after-hours security
- C. **“Soft Walls”:** conventional stud walls may relocate on five-year +/- intervals, free of intensive systems and structure
- D. **“Hard Walls”:** permanent walls that contain lateral structure, intensive plumbing and electrical systems, duct chases, casework; held mostly to perimeter locations



FLEX STRATEGIES

- A. No walls
- B. Movable walls
- C. Soft walls
- D. Hard Walls

Upper Level Engineering Quad



Upper Level Computer Science Quad



# Design Planning: Visioning Work Sessions

## Planning Process:

Visioning Round Table Discussions were conducted with a wide range of stakeholders, including;

1. Business Partners
2. Institution Leaders
3. Students
4. Faculty
5. Alum

Inspired quotes from students led directly to the organizational design of the learning communities ("Academic Quads"), where students can move from mode to mode at their own pace, and easily partner with fellow students in adjacent programs to assist with projects.

Future visioning among the leadership led to strong emphasis on future flexibility.

Goals expressed by business partners pushed the faculty and administration to incorporate more "real-world" workplace settings into the learning environments.



## CORPORATE PARTNER VISIONING SESSION – HERE’S WHAT THEY SAID:

**Collaboration is Missing** in the students’ skillset toolbox. The facility should improve visibility and access to other resources outside the immediate lab.

**Full Palette of “Use Modes” in the Labs** – Support the ability to hang out, do homework, and independent unstructured work as well as lab work.

**Leadership of Teams** – Students should be put in charge of driving teams.

**Multidisciplinary Mindsets** – It’s important to understand how all processes and roles are critical to one another – to see this in action via proximity.

**Replicating the Active Workplace** – Students need to learn how to partner activity with appropriate space – the facility should provide them that palette of spaces.

**Communications Proficiency** – It’s important to see how communication works on large, complex teams and how to convey information differently based on the forum and participants.

**Work is high speed. Education is not.** – MIC needs to prepare students for speed.

**Extended Hours of Access** – Provide the ability for students to work all night if desired/needed.

**“Mini-Conferences”** – The sharing of project experiences is really important.

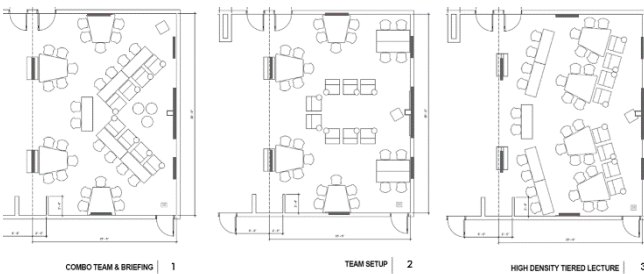
# Full-Scale Pilot Learning Spaces

## Planning Process – Evolutionary Learning Spaces Require Evolutionary Teaching Practices:

Early in the design process, the first of two pilot learning spaces were mocked up. Over the course of the next year, multiple teachers were able to use the space and provide feedback which informed the final design. Currently, a second pilot learning space is being installed and will be utilized for teacher training in flipped classroom methods and advanced pedagogical strategies. This will be an incubator for the new building as well as other spaces across UCM's home campus.



*Pilot Learning Studio #1: Utilized in the Computer Science Department features all wireless student devices, touch-interactive projectors, highly mobile team tables that shift quickly from lecture mode to team mode, and mobile white boards.*



*Pilot Learning Studio #2: Highly adaptive furniture and AV systems shift from formal instruction settings to break-out to informal learning.*



*Pilot Learning Studio #2 (Completion Summer 2016): Simulates the future Flex Open Learning Studios that will be utilized for flipped classroom methods. Hosting up to 75 students, the learning spaces promote teaching and learning models that more closely approximate workplace behaviors and activities. The intent is to push MIC's pedagogical methods forward with spaces that are difficult to use for traditional lecture-style teaching.*



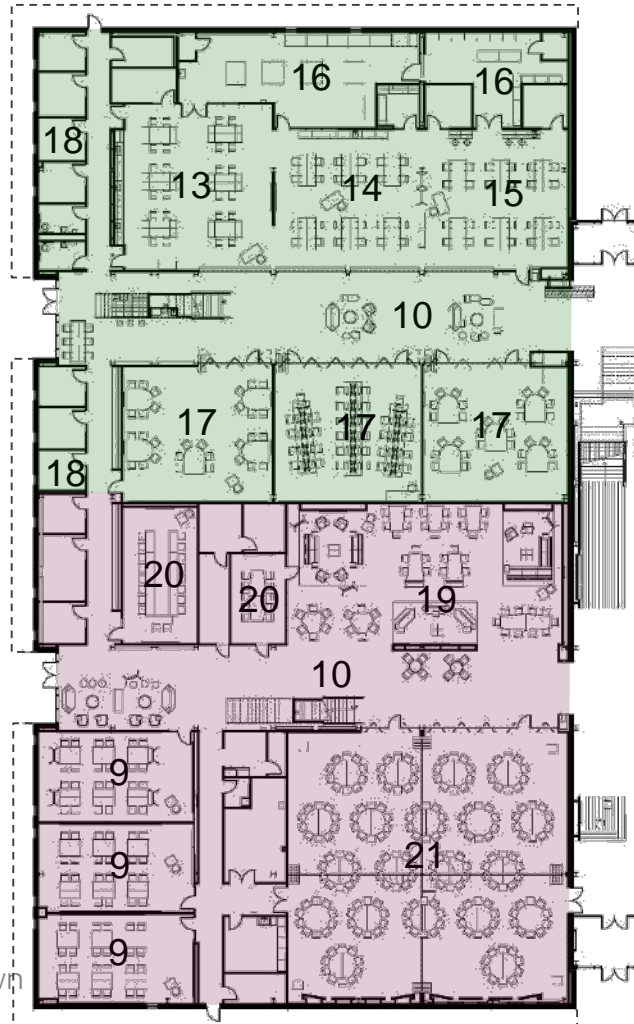


# Ground Floor Plan

## Legend:

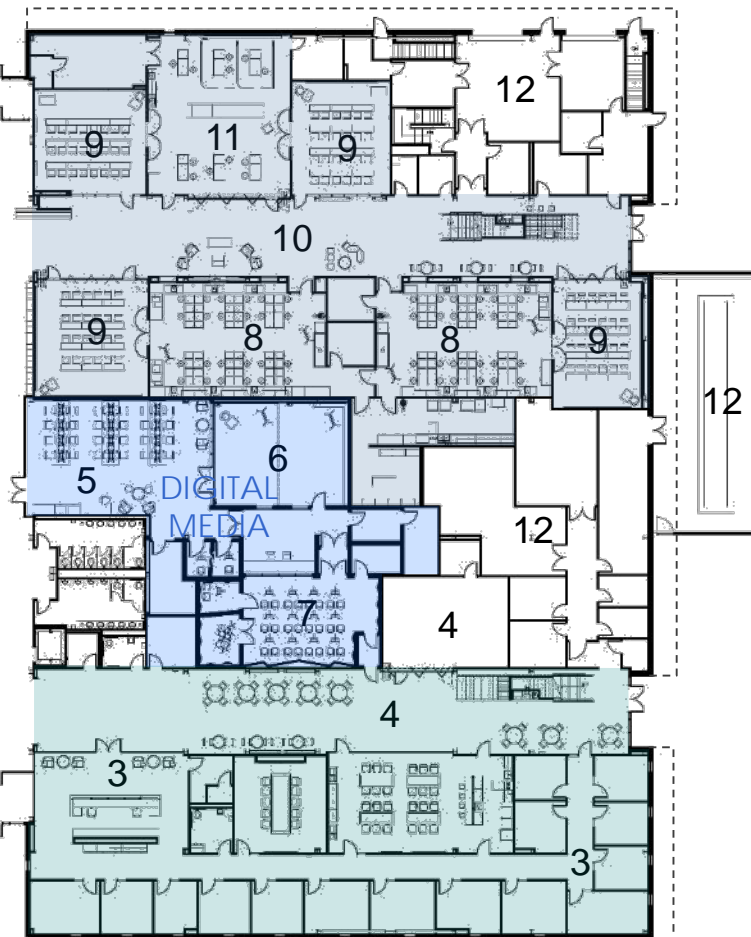
1. Info, Reception
2. Central Commons and "Stage"
3. Shared Administration
4. Student Center and Bookstore
5. Digital Media Lab
6. Video, Lighting Studio
7. Studio Live Room
8. Biomedical Innov. Lab
9. Learning Studio
10. Ideation Commons
11. Allied Health Lab
12. Building Support
13. Engineering Lab
14. C.I.M. Lab
15. Digital Electronics Lab
16. Shared Workshop
17. Flex Digital Lab
18. Faculty Offices
19. Flex Open Learning Studio
20. Break-Out and Touch-Down
21. Conference Center

## ENGINEERING DESIGN & DRAFTING



## GENERAL-USE/CONF. CENTER

## HEALTH SCIENCE



## DIGITAL MEDIA

## ADMINISTRATIVE

The building is organized in "Academic Quads" that are centered on departments. UCM and LSR7 each utilize the building during the day, and UCM takes over more shared space in the evening.

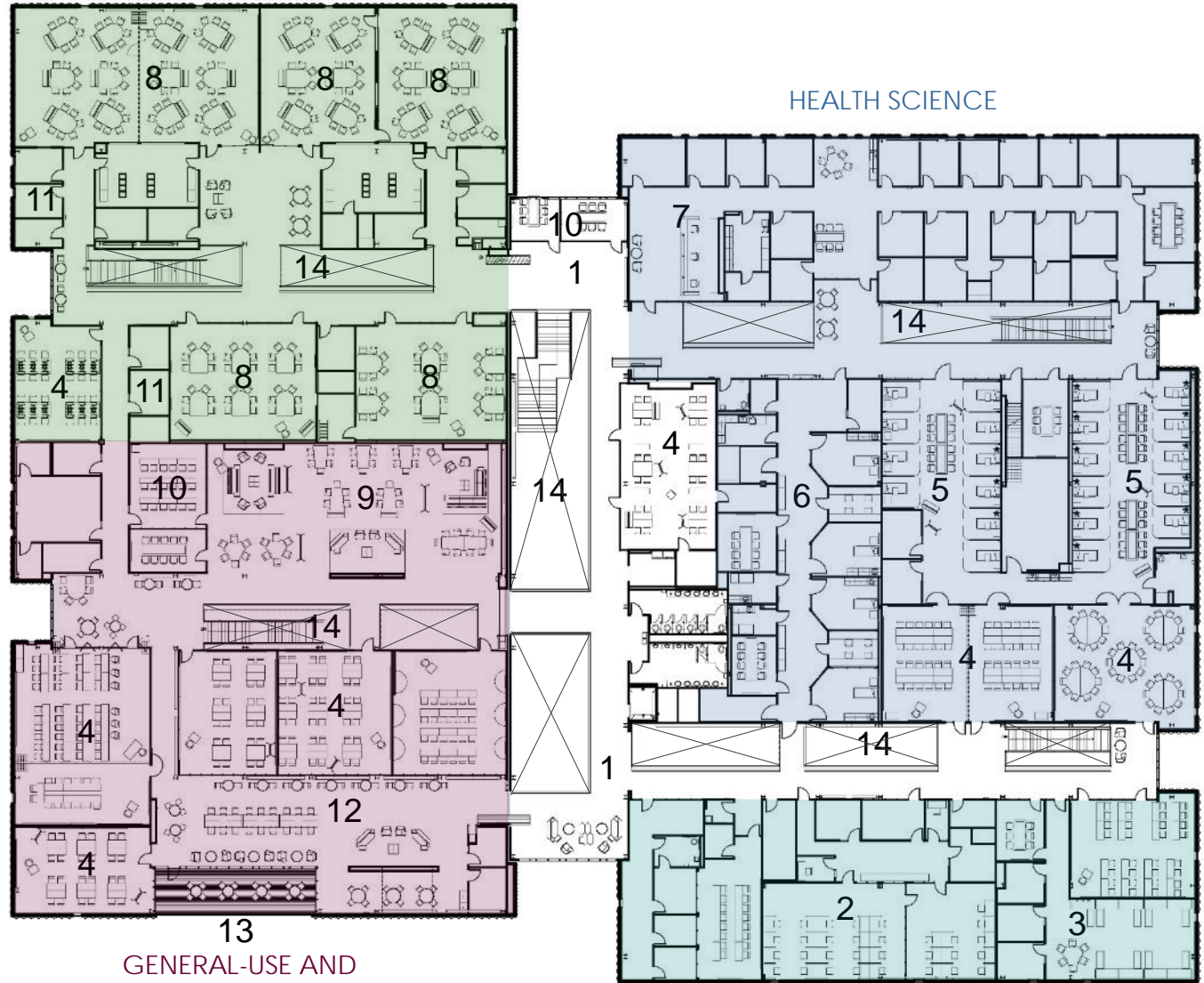
# Second Floor Plan

## NETWORKING/SOFTWARE

## HEALTH SCIENCE

### Legend:

1. Upper Commons
2. Testing and Counseling
3. Workforce Development
4. Learning Studio
5. Nursing Bed Lab
6. Nursing Simulation Ctr.
7. Nursing Faculty
8. Computer Science Lab
9. Flex Open Learning Studio
10. Break-Out and Touch-Down Space
11. Faculty Offices
12. Learning Commons and Student Success Center
13. Roof Terrace
14. Open to Below



## GENERAL-USE AND LEARNING COMMONS

## STUDENT SERVICES



# Exhibition of School Planning and Architecture

## Project Data

<b>Submitting Firm :</b>	<b>Gould Evans</b>
Project Role	Design Architect
Project Contact	David Reid
Title	Principal
Address	4041 Mill Street
City, State or Province, Country	Kansas City, MO 64111
Phone	816-550-9362

<b>Joint Partner Firm:</b>	<b>DLR Group</b>
Project Role	Architect of Record
Project Contact	Kevin Greischar
Title	Principal
Address	7290 W. 133 <sup>rd</sup> Street
City, State or Province, Country	Overland park, KS 66213
Phone	913-897-7811

<b>Other Firm:</b>	
Project Role	
Project Contact	
Title	
Address	
City, State or Province, Country	
Phone	

<b>Construction Firm:</b>	<b>McCownGordon Construction</b>
Project Role	Construction Partner
Project Contact	Brett Gordon
Title	President
Address	422 Admiral Boulevard
City, State or Province, Country	Kansas City, MO 64106
Phone	816-960-1111

# Exhibition of School Planning and Architecture

## Project Details

<b>Project Name</b>	Missouri Innovation Campus
<b>City</b>	Lee's Summit
<b>State</b>	Missouri
<b>District Name</b>	Lee's Summit SD, University of Central Missouri, and Metropolitan Community Colleges
<b>Supt/President</b>	Dr. Chuck Ambrose, President, UCM
<b>Occupancy Date</b>	July 2017
<b>Grades Housed</b>	10-16
<b>Capacity(Students)</b>	1,540
<b>Site Size (acres)</b>	15
<b>Gross Area (sq. ft.)</b>	147,000
<b>Per Occupant(pupil)</b>	95
<b>gross/net please indicate</b>	1.46 Multiplier
<b>Design and Build?</b>	No
<b>If yes, Total Cost:</b>	
<b>Includes:</b>	
<b>If no,</b>	
<b>Site Development:</b>	\$2,048,569
<b>Building Construction:</b>	\$26,808,688
<b>Fixed Equipment:</b>	\$0
<b>Other:</b>	
<b>Total:</b>	



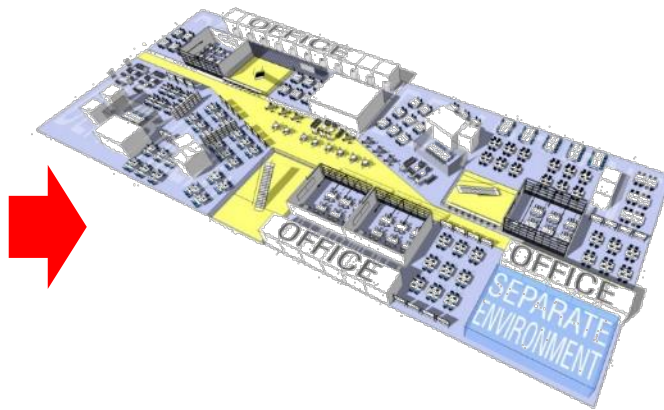
# Learning Space Emulates the Modern Workplace

## Planning Process (cont'd.) : Evolution of the Learning Model

MIC is extremely oriented toward the workforce needs of their business partners. As such, the planning process included studies of modern workplace environments (including MIC's business partners) and extrapolated those findings into hypothetical learning environments. From there, the program needs were overlaid with ideal hypotheticals to derive innovative learning spaces that supported the teaching and learning efforts of the UCM and LSR7 staff.



MODERN WORKPLACE  
**YAHOO!**  
(credit: Gould Evans)



HYPOTHETICAL LEARNING SPACE  
DIAGRAM

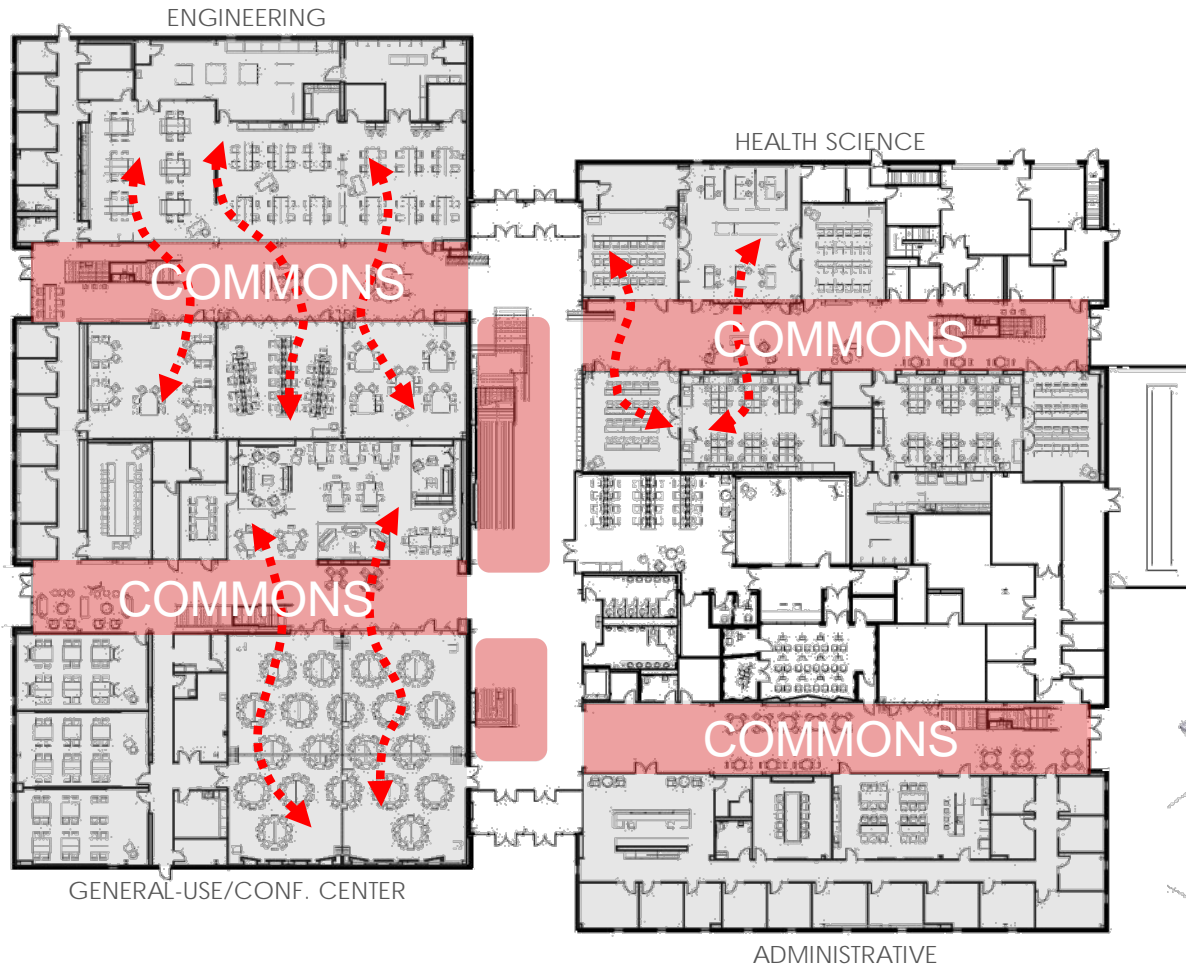


APPLIED LEARNING ENVIRONMENT

# Every Square Foot Applied to Learning

## Physical Environment (cont'd.) : High Utilization of Space

Space normally associated with dedicated circulation has been repurposed as Learning Commons for each department, thereby increasing the usable footprint and building efficiency significantly. The "cul-de-sac" organization of circulation eliminates the majority of "through traffic," limiting distractions in this cross-purpose space. Floor openings to the upper level allow more effective collaboration among stacked departments.

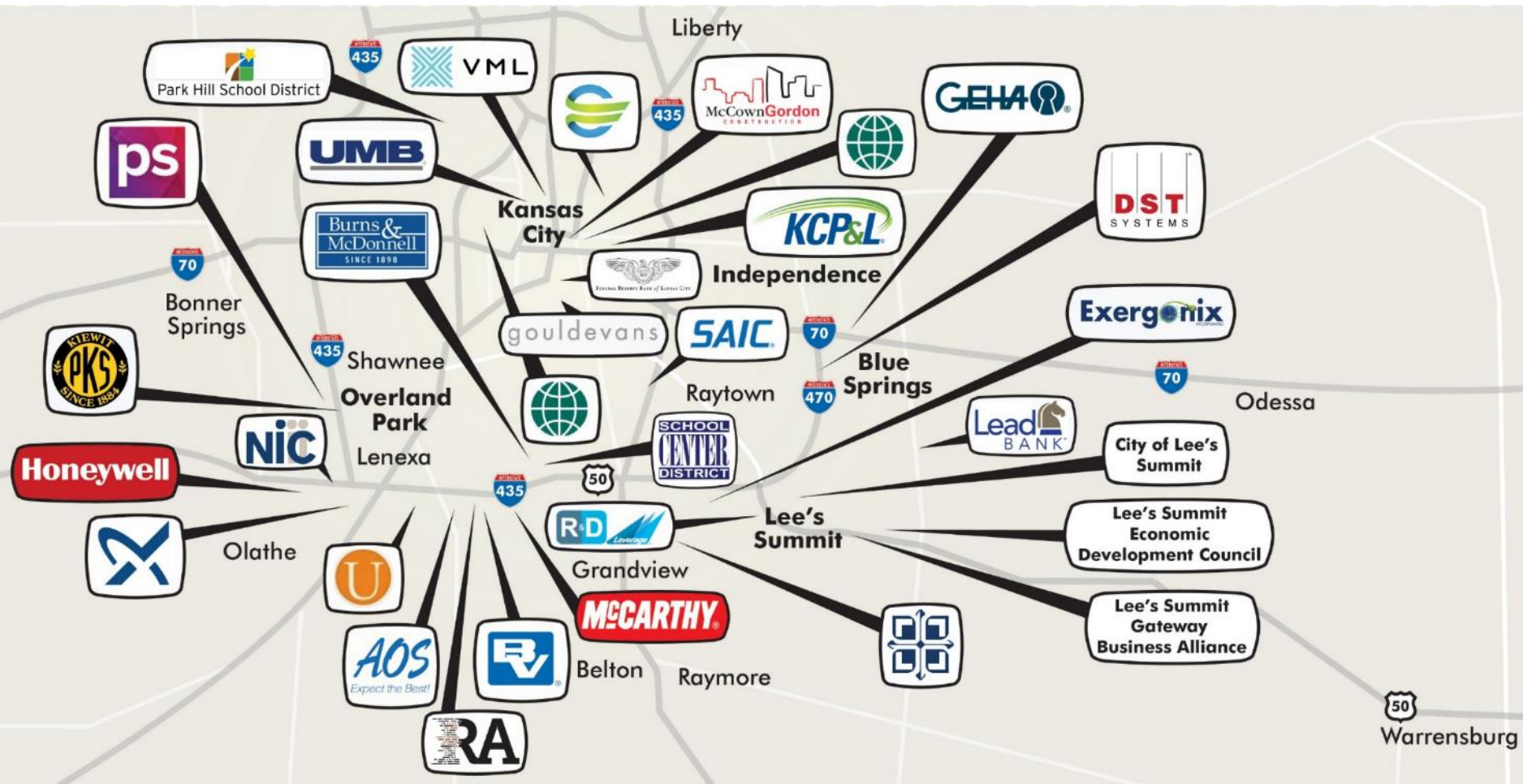




# Close Alignment with Workforce

## Community Environment (cont'd.) : A Unique Set of Business Partnerships

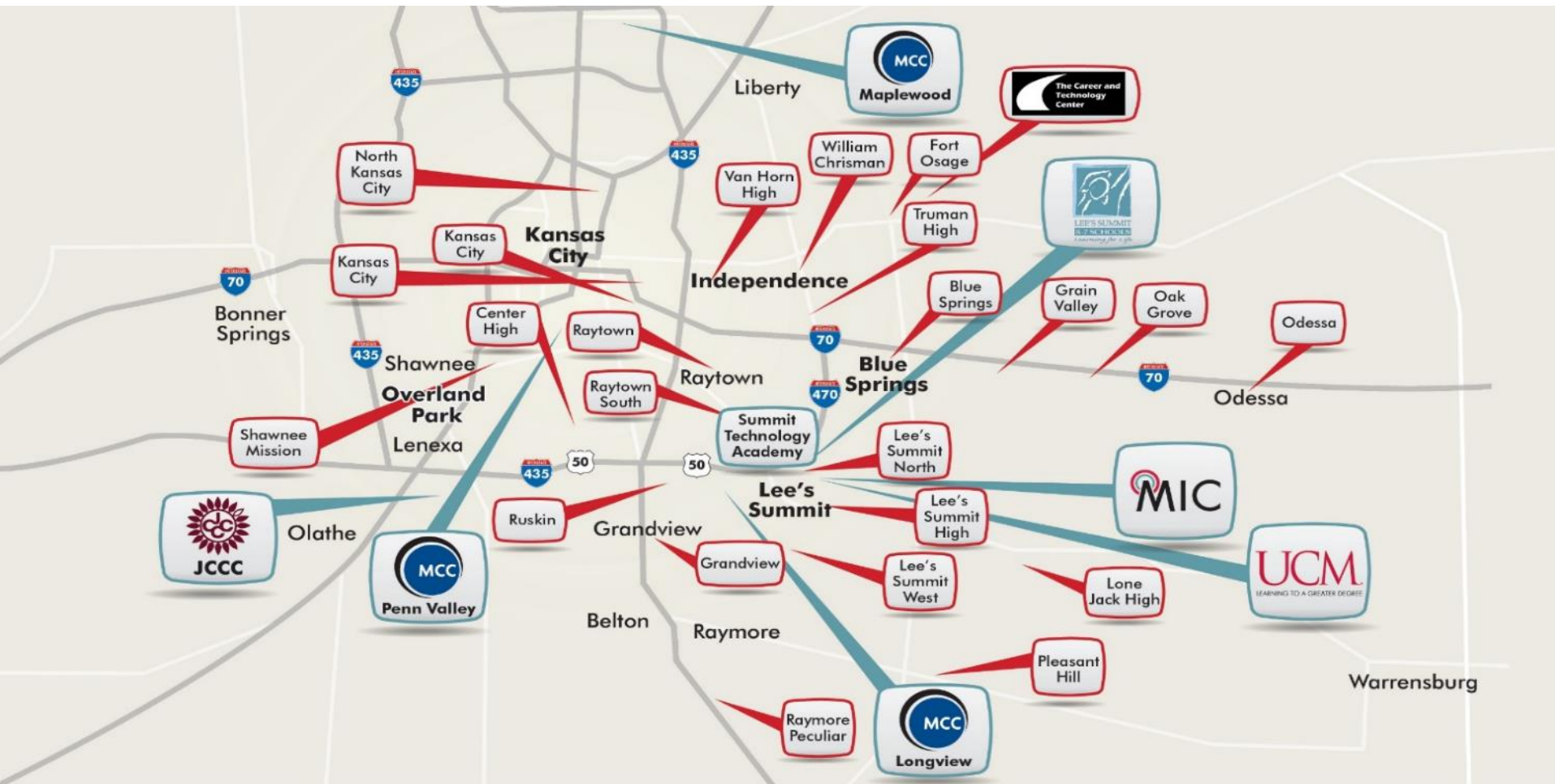
The range of business partners continues to grow. Each student is paired with a business partner and begins a professional internship following their junior year which continues for another 3 years. MIC is extremely committed to economic development within the region and provides companies with resources to extend their effectiveness. MIC adjusts its current programs and develops new programs based on industry demand. Through these relationships, MIC is a direct reflection of current workforce demand, ensuring their graduates relevancy in the workplace and eliminating their college debt.



# A Broad Academic Community

## Community Environment (cont'd.) :

The two institutions credited with innovating this extraordinary program (and the two that have invested in the construction of the new MIC campus) are Lee's Summit School District and the University of Central Missouri. In addition, Metropolitan Community Colleges and Johnson County Community College offer a lot of credit programs to the high school students to accelerate progress toward their bachelor's degrees. The student body itself is made up of students across the entire Kansas City metropolitan area. MIC has testimonials from a number of families that have moved to the area simply for their children's access to this unique program.





# Benefits for Students

## Learning Environment (cont'd.) :

- Lower the cost of higher education
- Accelerate the time to degree completion
- Provide applied learning experience for students
- Graduate students with no debt and direct access to a career



# Benefits for Business Partners

- Access to talent
- Effectiveness in recruiting and training
- Continuity of internship
- Crafts culture that supports continued learning as a strategy for competitive advantage