Center for Interdisciplinary Education

"'Interdisciplinary' refers to a process [of constructing] knowledge in which students and instructors come together to analyze differences in disciplinary approaches to a problem and to work toward a more comprehensive view than allowed by the vision of any one field."

"All disciplines have imported aspects of other fields to clarify their own disciplinary perspectives."

"[Interdisciplinary] initiatives seek to promote connected learning beyond the discipline as a primary goal -- pursuing knowledge that integrates and synthesizes the perspectives of several disciplines into a construction that is greater than the sum of its distinctly disciplinary parts."

Project Description:
My project is a Center for Advanced Interdisciplinary Learning for Monmouth College in Central Illinois.

Elevator Statement:
My project will consist of developing a high-performance mid-rise collegiate building in which disciplines including Business, Mathematics, and Science can interact, and benefit from each other while providing illustrations of environmental consciousness for a more comprehensive education.

Case Statement:
Monmouth College is a Liberal Arts institution seeking to increase interaction among its academic departments as the benefits of exposing its students to various disciplines are endless.

The site, a picturesque college campus in Central Illinois presents great opportunities for architectural expression, as well as limitations by the local community. The rapidly growing town of Monmouth is characterized by its farming community, diversified population, and recent interest in sustainable strategies.

The interdepartmental collaboration expected to result from a mixed-use mid-rise is aimed to create partnerships and break down figurative walls which hinder cross-disciplinary learning. This hybrid teaching and research facility will serve as a tool for Monmouth College to educate its students in a more comprehensive manner while encouraging environmental responsibility through physical illustrations of energy conservation.

Some of the specific benefits of an interdisciplinary education include developing well-rounded employees in order to create opportunities in a suffering workforce; adopting a different approach to pressing social issues that cannot be resolved by a single discipline; utilizing educational resources in a more efficient manner by sharing them across disciplines; and ultimately creating new knowledge my merging existing information.

Goal Statements:

The main focus of this project is to integrate the needs of an interdisciplinary education into an architectural expression which encourages students and faculty to see the world as a complex network of interrelated ideas, as opposed to individual disciplines.

A secondary goal consists of promoting environmental responsibility among collegiate students and the local community through daily exposure to sustainable strategies.
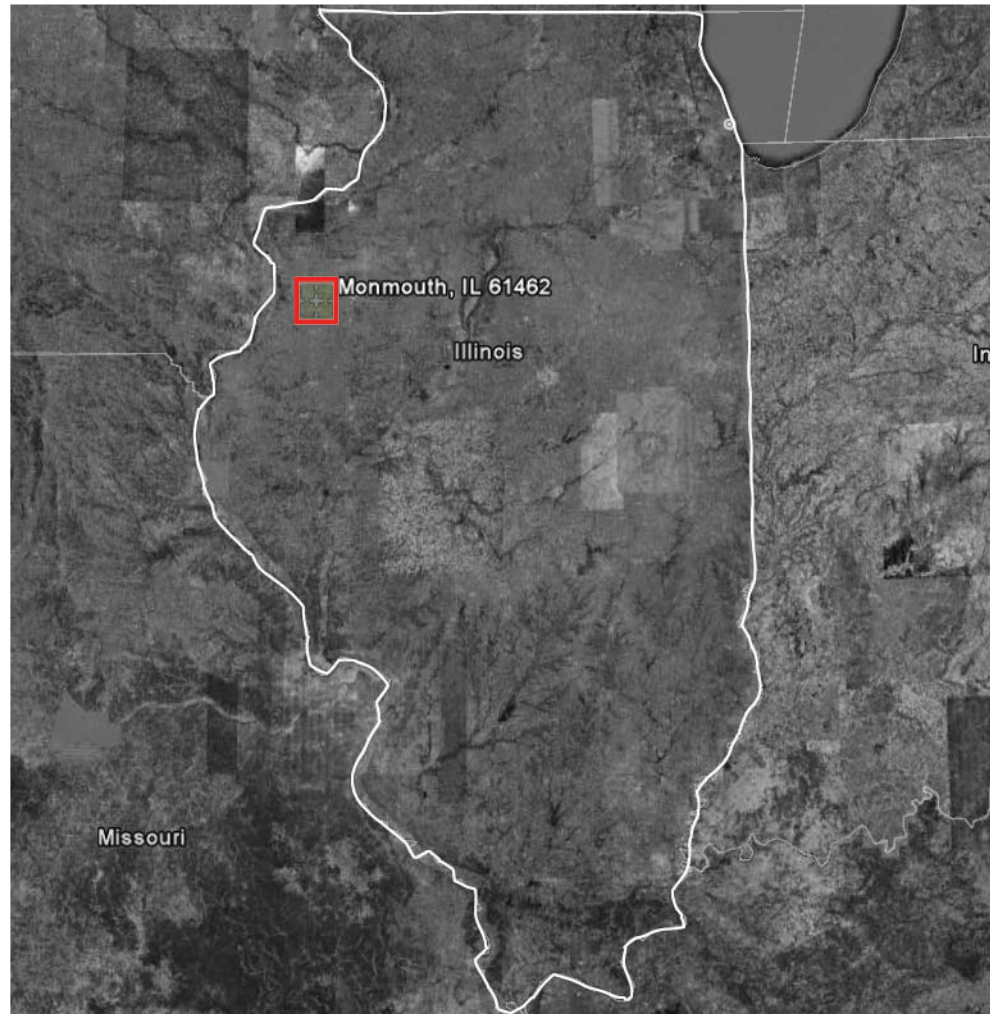
Guiding Principles:

Utilize psychological strategies to promote inter-reliance.

Establish cross-disciplinary partnerships through inevitable interaction.

Provide visual and physical exposure to the benefits of sustainability.
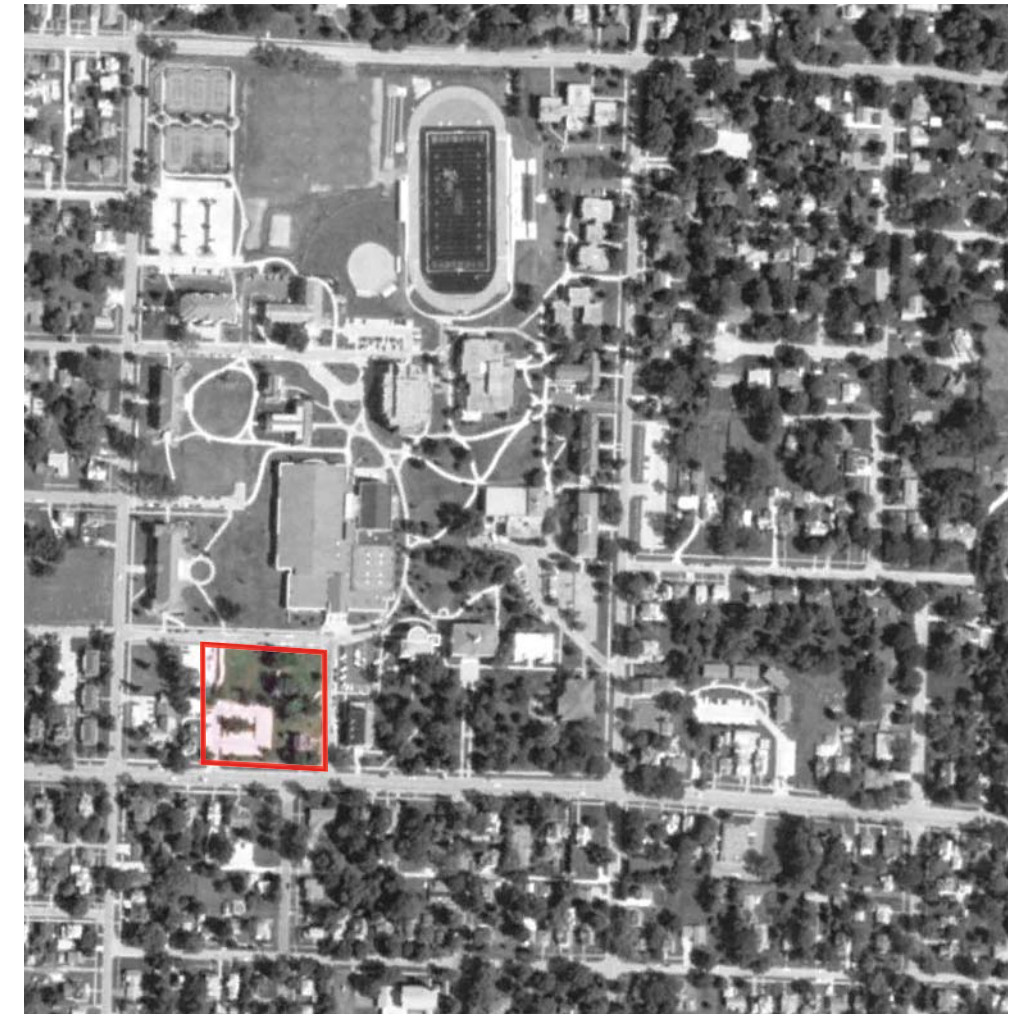
Provide a strategically laid-out facility that compliments Monmouth College's interdisciplinary syllabi.

Monmouth, IL   Monmouth College   Immediate Site

About Monmouth College:

Monmouth is a privare, four-year liberal arts college offering the bacher of arts degree. MC was founded in 1853 by pioneering Scottish Presbyterians who envisioned the benefits of a establishing a higher education institution in an un-developed area while placing emphasis on discovery and investigation.

"Monmouth College's chief interest lies in providing its students a generous understanding of human experience, indi-vidual disciplines receive their sense of direction from taht larger commitment rather than permitting the specific interest to become an end in itself."

Typical Programming Scheme

Mathematics

Business

Science
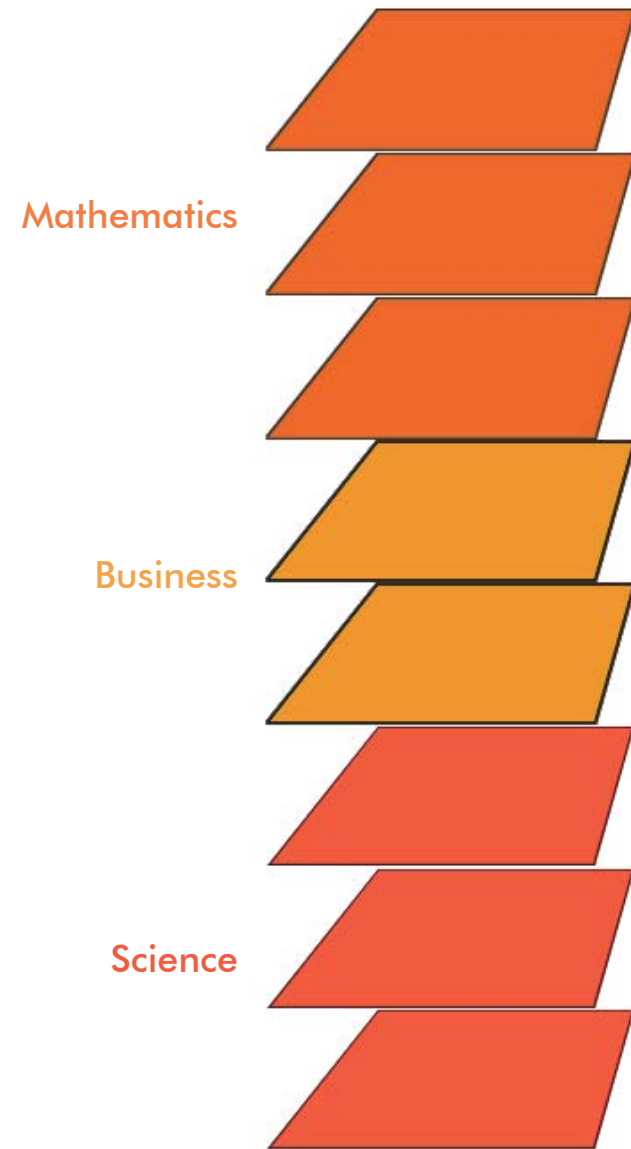
The separation of disciplines hinders interaction; interaction and inter-reliance which would otherwise result in the creation of knowledge through the merging of existing information.

Interdisciplinary Scheme

	Dimensions	SQ FT	Levels	Total SQ FT
Building	130' x 130'	19,600 sq ft	7	118,300 sq ft
Auditorium		17,000 sq ft	1 (1.5)	17,000 sq ft
Classrooms			5	
Business		1,000 sq ft	5	5,000 sq ft
Mathematics		1,000 sq ft	5	5,000 sq ft
Science		1,000 sq ft	5	5,000 sq ft
Circulation		3,920 sq ft	6	23,520 sq ft
Common		480 sq ft	6	2,880 sq ft
Labs			5	
Shared		2,537.5 sq ft	5	12,687.5 sq ft
Mechanical			1	18,000 sq ft
Offices	Business	250 sq ft	5	1,250 sq ft
	Mathematics	250 sq ft	5	1,250 sq ft
	Science	250 sq ft	5	1,250 sq ft
Service		1,000 sq ft	6	6,000 sq ft

Ground Level - Auditorium

Typical Classroom Level

Encouraging students and faculty to utilize tools and methodologies from disciplines other than their own.

Presenting knowledge in an organic manner - in the context of authentic problems, interests, and concerns.

Guiding ways of thinking to find solutions through the collective use of information.

Integrating various disciplines' methodologies for a broader education.

Process Explanation:

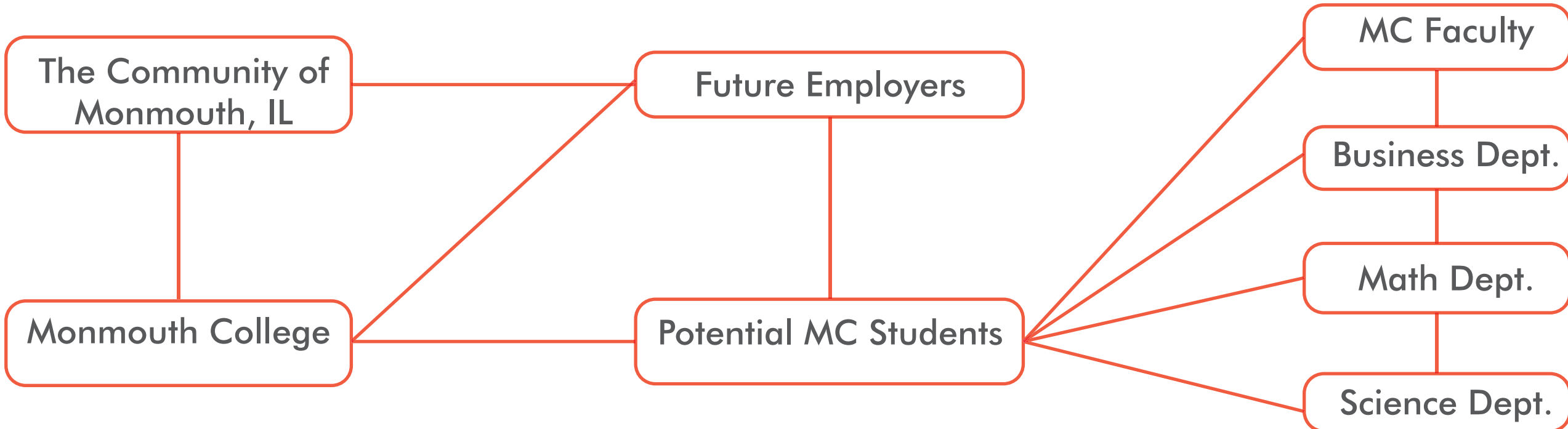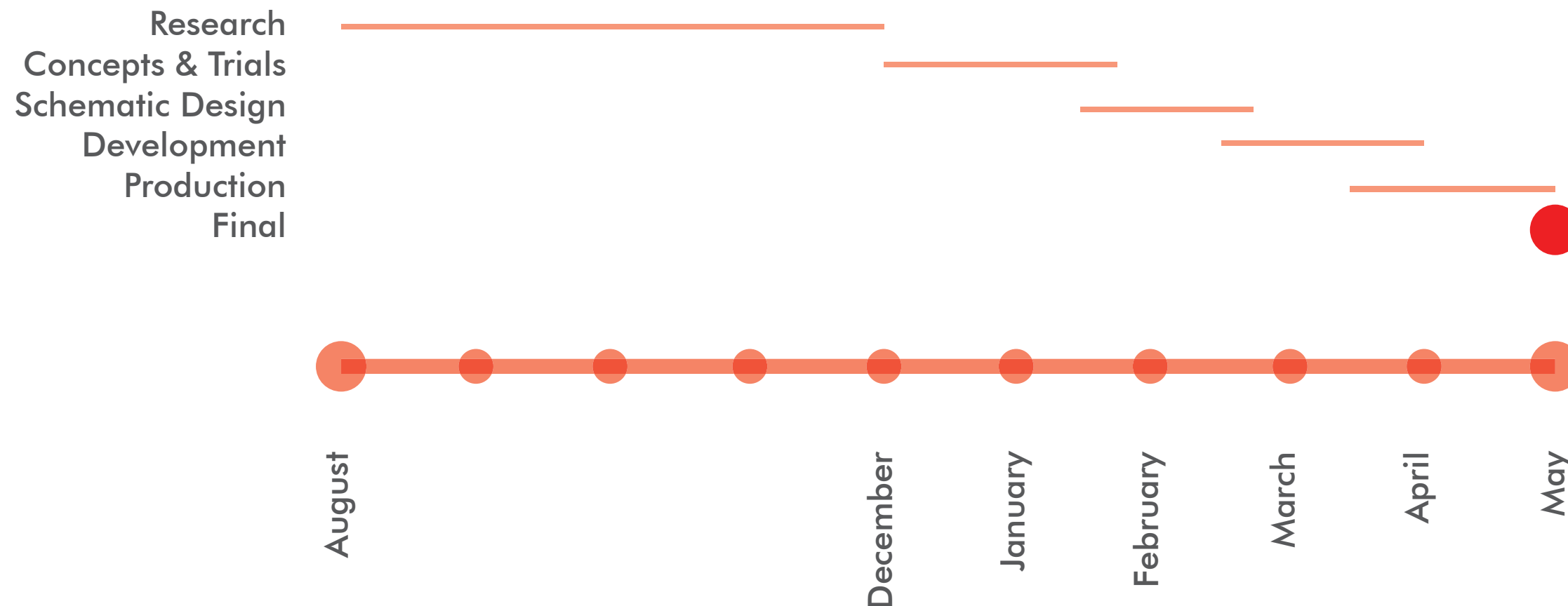To develop my project, I will travel to Monmouth College and interview its president, as well as staff and students. The purpose of these interviews will be to determine the specific needs which must be fulfilled by an academic building in order to provide a high-quality Liberal Arts education. In addition, I plan to work with the Arts Department at Monmouth College in order to incorporate students' ideas.

External considerations such as city codes will be applied accordingly.

Furthermore, budgets and finances will play a major role in my work due to the nature of this project. The financing of this project which is currently in a concept & schematic design phase by Burt Hill Architects, will come primarily from donations. Consequently, I will place emphasis on the efficient use of resources.

Research
Concepts & Trials
Schematic Design
Development
Production
Final

August
December
January
February
March
April
May

The John Garside Building, Manchester Interdisciplinary Biocentre

- Houses disciplines which include Physical Sciences, Engineering, Mathematics, and Computation.
- Designed to foster a scientific culture without barriers among disciplines.

1. Open plans, multifunctional spaces, and generously proportioned social areas aim to encourage interaction.
2. A network of interconnected meeting rooms and discussion areas promote cross-disciplinary collaboration while laboratories are shared by various disciplines.

Business & Engineering Center, University of Southern Indiana

Houses Business & Engineering.
Collaboration & Innovation

1. The building serves both Business & Engineering interdependently, providing both dedicated and shared spaces.
2. The design allows each program to have a distinct identity while overlapping in a shared central atrium.
3. The atrium promotes collaboration and a vibrant synergy between the two programs.

Entry to the building occurs along a seam between the Business and Engineering programs. Different materials are used to create visual separation between the two programs while glass is used to showcase collaboration.

University of Southern Indiana
College of Business & General Classroom Building

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