Background

Competitiveness of metropolitan areas is important to remain relevant in the global market. Historically, markets remain competitive by producing more goods with cheaper prices. As more nations industrialize, competitiveness is shifting from cheap production into innovation. This is done through the application of science and technology, attained by a population with higher levels of education. Fellow ASEAN countries have determined that investment on human capital is a crucial role in creating a competitive industry. By allocating resources on higher education facilities, returns are made from high skill, high competence workers (Agus et al., 2015).

The national economy directly benefits from the innovation led by scientific research. In the study of Latvia and Lithuania, the nations' economies are catching up to fellow European countries through the investment on research and development. It has been determined that overcoming the lack of academic knowledge and prestige to the applied sciences can lead to significant improvement to innovation. Having a collaboration between university and industry is vital to economic growth (Lace & Rumbinaite, 2020).

Significance

The depreciation of the economy is significantly affected by the depletion of natural resources. Analysis of 25 years of data from 10 ASEAN countries, including the Philippines, reveal that the conservation of natural resources generally leads to better economic growth (Nawaz, Azam, & Bhatti, 2019). The complex issue of environmental conservation requires a paradigm shift in industries, government policies and human activities. Higher education can lead this change through the production of environmentally conscious professionals. In this way, advancement in industry will have a deep rooted incorporation of sustainability. This would require institutions that have the ability to ingrain environmental and sustainability literacy to students (Cortese, 2003).

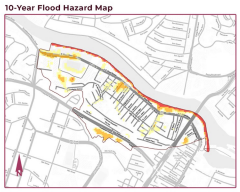
Agenda

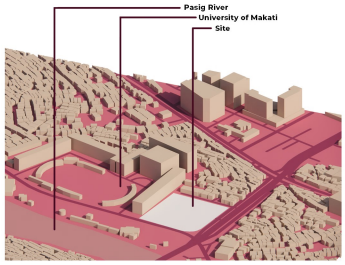
1 **Scientific advancement**
Directly and indirectly cause innovation in science and technology through research.

2 **Science Education**
Educate the community and produce graduates that can apply their knowledge on various industries.

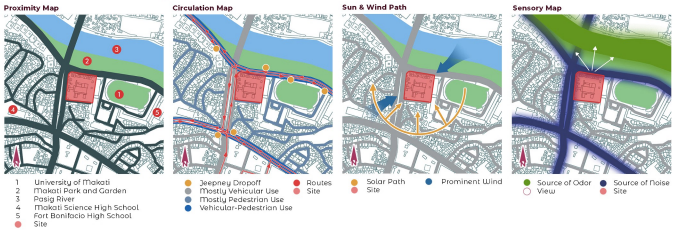
3 **Environmental Conservation**
Instill environmental awareness to students to make environmetal and sustainability literate professionals.

Macroanalysis





Microanalysis

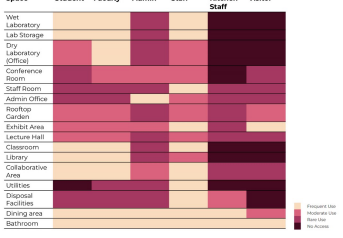


Programming

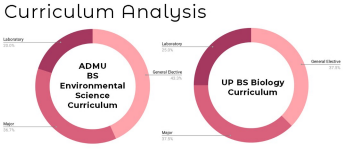
Programming for Combined Agendas

Agenda:	Space:	Area (sqm)	Quantity	Subtotal (sqm)
Scientific Advancement	Standalone Laboratory	100	2	200
	Central Laboratory	200	2	400
	Major Peripheral Room	32	8	256
	Minor Peripheral Room	10	10	100
	Clean room	4	2	8
	Lockers	15	4	60
	Lab Storage	20	4	80
	Office	60	2	120
	Utilities	10	5	50
	Disposal Facilities	40	1	40
Environmental Conservation	Rooftop Garden	160	1	160
	Exhibit Area	200	1	200
	Lecture Halls	200	2	400
	Library	252	1	252
Science Education	Learning laboratory	60	9	540
	Learning Lab Storage	15	4	60
	Staff room	60	1	60
	Admin Office	60	1	60
	Conference Room	30	2	60
Common Spaces	Collaborative Area	200	1	200
	Student Lounge			120
	Dining area	200	1	200
	Bathroom	40	6	240
Total				3866
Total w/ Circulation & Walls				5412.4

User Analysis

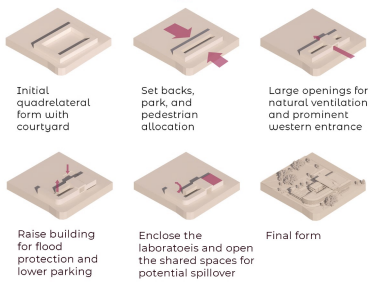


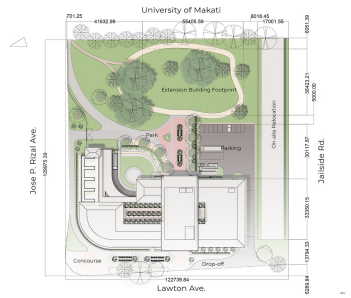
Curriculum Analysis



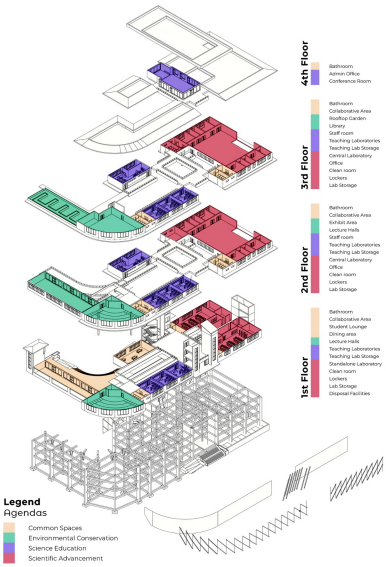
lecture halls/teaching labs capacity **2:1** **reasearch laboratory capacity**

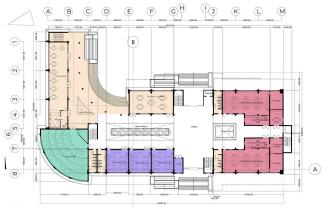
Form Finding





Site Development Plan

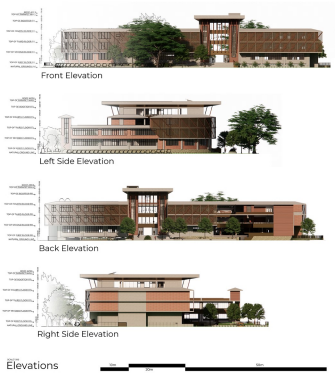




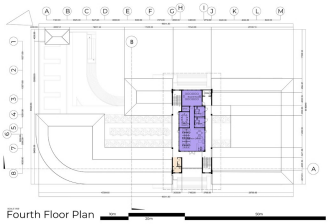
First Floor Plan

Second Floor Plan

Third Floor Plan



Elevations



Fourth Floor Plan

Lawton Ave. Entrance

Aerial view of park and amphitheater

Interior view of hallways

View of front concourse

View of building atrium

Interior view of standalone laboratory

Basilio A. Pangilinan
2018-07891