UiTM Academic Compass: Navigating the Future

EDUCATION 5.0@UiTM
Moving *Into the Next*

Universities have very distinct noble mission. We generate new knowledge and talent for the industry and society. We define the learned person and ultimately the society we want to prosper in. The symbiotic relationship we have with external parties is kept in view as the society and the industry are also impacting the way higher education is evolving. Rapid global and technological changes following the fourth industrial revolution not only require quick response but also a proactive fervour to make higher education ecosystem future ready. This is what Education 5.0 @UiTM is all about. It is about nurturing the UiTM brand of *Millennials* – young enthusiastic, diligent, highly principled, and progressive thinkers who are constantly learning and mindful of current and future state.

The future of work, smart machines, advanced cutting-edge media, internet and social media technologies are contributing factors to a massive shift in the way we educate. The university needs to break away from the traditional, content-based teaching practices to a new way of educating individuals which values the personalisation of learning. In Education 5.0@UiTM, flexible and adaptive learning paths, focus on imparting life /transversal skills, student centric learning methods and incessant use of technology are deeply embedded with values and principles. The pace we set is important; we need to go beyond being ordinary to being extraordinary and remarkable. As we move into the next era, our strategy is to *leapfrog* and lead. Education 5.0 @UiTM is about eradicating complacency, discarding lethargy, emphasizing ‘business unusuals’ and doing the right things in a swift and sure way.
Methodology
How this book was planned and supported

The multi-strand approach included desk research (reviewing literature on the looming technological revolution and experiences of T & L with technology); online quantitative surveys with ~2000+ participants (all branches in UiTM); and qualitative interview sessions with academics and students. These approaches were intended to study how academics and students respond to changes and how relevant the proposed framework is to the academics and students’ expectations. Focus group sessions with leaders, managers and policy makers were conducted to elicit ideas and strategies of deployment and assuring the success of the Education 5.0@UiTM initiatives. Chapters are then written based on these data and collective input. Illustrations of instances and quotes particular to the ideas are also provided.
Synopsis of the chapters

Chapter 1: Navigating the Future
• This chapter gives an overview of a framework for creating an academic ecosystem that responds to the changing higher education scenario.
• It also provides the background and current state of several selected matters.

Chapter 2: Education 5.0@UiTM
• Chapter 2 discusses the concept of Education 5.0@UiTM.
• It introduces the five pillars supporting Education 5.0 and the areas to focus on.

Chapter 3: Mapping out and sustaining Education 5.0@UiTM
• Chapter 3 presents a general ‘design to deployment’ framework.
• This includes enablers, policies, projects, structures and systems that are likely to ensure the sustainability and success of Education 5.0@UiTM.
• It also includes challenges that must be addressed to ensure a smooth process for setting up and managing Education 5.0@UiTM initiatives.
Chapter Outline

Chapter 1
• UiTM current state
• The changing higher education landscape
• UiTM forward

Chapter 2
• What is Education 5.0@UiTM
• Five pillars supporting Education 5.0@UiTM
  • Coherent and Relevant Curriculum
  • Innovative delivery and Assessment
  • Meaningful Learning Experience
  • Transformative learning environment
  • Inspiring Educators

Chapter 3
• Challenges
• Structures and enablers
  • Policies, guidelines and workable models
  • Technology and Accessible Resources
  • Designated Centres
  • Institute of Humanities and Contemporary Studies
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• Partnerships
• The 5C strategy
• Champions
• Communication
• Credit and Compensation
• Collaborative and Collective Effort
• Culture
• Roles and Timeline
CHAPTER 1
Navigating the Future of Education in UiTM

This chapter gives an overview of the needs for creating an academic ecosystem that responds to the changing higher education scenario. It provides the background and current state of several selected matters in UiTM and at the higher education level.
Universiti Teknoogi MARA (UiTM), a comprehensive university, is consistently ranked as the most popular place to study. As of September 2018, our enrollment approaches 150,000 students with 17,617 faculty and staff members. From a single building, UiTM has grown from an institute to a huge university with 35 campuses and 508 academic programs in the last 60 years. UiTM students study at many different campuses and graduate pursuing the same UiTM degree regardless of location.

UiTM faculty members seek to fully integrate the results of their research and creative activities into their teaching and enhancing student learning. UiTM is an emerging national model for supporting students’ success through innovative high-impact educational practices and co-curricular experiences. Our academic programs are meticulously designed to produce technically adept and competent highly sought after graduates. By having campuses across the country, the whole nation vies for UiTM and seeks to be a part of this thriving university.
UiTM constantly collects feedback and gauges academics’ and students’ responses to current changes, the system and the policies.

**Educators’ take on technology**

- **55%** of the educators surveyed thought that the 4th industrial revolution would definitely make learning more meaningful.

**Academic policies**

- **60%** of the educators surveyed were satisfied with the clarity of academic policies and guidelines.

**Learning Experience**

- **18%** of students surveyed rated their learning experience as great!

**Satisfaction**

- **66%** of students are generally satisfied with their experience at UiTM.

* These are the results of several surveys conducted among students and academics at different points in time. The number of respondents may differ.
Current State

Awareness of new learning technologies

52% of learners surveyed had studied through MOOC
A smaller percentage of 13% had used augmented reality

21st Century T & L Practices

of Educators surveyed reported engaging in some form of 21st Century T & L practice especially collaborative learning

Learning Experience

13% of students surveyed had experience learning from international experts.

A small percentage had been involved in international mobility programs 16%
Lessons from the field: The shift from content and grade

An inherent shift prevails as learners move into the era of IR 4.0. Learners now value learning from experience, challenge, space to express and create, flexibility, being given voice, connectedness and learning that instigate change. When compared to responses collected in early 2015, there has been less emphasis on getting good grades and emerging top in class.

- Meaningful learning to me is when learning activities relate with ICT because it gives me a space for expressing my own ideas, designs and I can create.

- Meaningful ...when I can gain from the intentionally and unintentionally learning including from experiences, observation and etc...

- Meaningful when I acquire knowledge that I am most passionate about, something that is super personal, close to my heart and will weigh significant impact – not only directly to me but also will benefit my family, friends.

- Meaningful when there are affection, connectedness and support

- Learning became meaningful & enjoyable cos you made it flexible, you let us explore, you didn’t set any right or wrong and you’re open to new unfamiliar idea, you let us voice out our mind & interest.

- Is about being challenged..., from the way you’re thinking, the way you present, you have to put in your mind that it’s all another level or else you’ll be stuck just like in past.

- A learning process will be meaningful only when someone absorb something that will change the way he thinks, the way he feels, and also change what and who he was.

*Narratives from surveys done over several semesters 2015-2018*
Why this Playbook
The changing higher education landscape

Changes in the education ecosystem

- The fast changing and pervasive nature of technology is undoubtedly altering educational delivery and shaping the learning experiences of the students. Content is no longer the focus since it is easily accessible and available in many forms through various platforms. Higher education is not confined to the “ivory tower”; instead, the industry and the community are becoming more aggressive in their demand for graduates who can work and function in society. Graduates are expected to thrive at both the national and global fronts. They are expected to be agile and to have an adaptive mindset.

Evolving needs of society and industry

- As competition rises, industries are becoming more vigilant and fastidious in choosing their employees. Taking time to train new employees is not something industries indulge in. Having work ready individuals is preferable. Skills needed have changed tremendously with the advent of the fourth industrial revolution. In addition, competencies and skills that are required in the industries may not be formally taught on campus. Some are picked up in informal and non-formal sessions. Some are self-learned.
- On the one hand, it is imperative for society to have members who will contribute to its improvement and betterment; There are those who have strong values, passion and a strong sense of community mindedness. They will not only serve to protect the members but also its environment.

Changes in UiTM

- UiTM has in recent years seen a fluctuating intake and interest in its academic programs. Curriculum delivery and assessments require constant enhancement while review of the curriculum is ongoing to accommodate the changing needs of the society and industry. An alternative design and provision of academic programs are necessary.
- Technology is key to positively respond to the growing demands of the fast changing world. UiTM needs to capitalize and leverage on technology to ensure provision of courses are efficient and students’ learning experiences are meaningful and exciting. Staying abreast and staying ahead is vital for UiTM’s survival in a complex and uncertain world.
When the wind of change blows, some people build walls, others build windmills.

Chinese Proverb
 WAY FORWARD : THE PIONEERING UNIVERSITY FRAMEWORK

The pioneering university framework envisions UiTM as taking the lead in driving impactful initiatives that are business un-usuals and fulfil its quest to be in sync and relevant to the industry and society at large. In response to the technological advances, it is expected that UiTM campuses will be digital campuses, where activities right from enrolments to credentialing can be facilitated by technology.

 PRIME AREAS

There are five prime areas that have been identified in the Pioneering University Framework, one of which is Education 5.0@UiTM. The others are

- Entrepreneurship Ecosystem
- Global Prominence
- Driving Research
- High End TVET
This chapter introduces the concept and the five pillars supporting Education 5.0@UiTM
What is Education 5.0@UiTM?

Defining Education 5.0@UiTM

A learning-centric ecosystem that is sustainable, balanced and principled, driven by values, powered by intellect and afforded by new, ubiquitous technologies.

Education 5.0@UiTM is not about smart technology and the machine’s capability to do what humans do; rather it is about what humans can do well rendered by smart technology and machines.
What is Education 5.0@UiTM?

Education 5.0@UiTM embraces the elements of Education 4.0 with an emphasis on values and future progressive thinking. Within the Education 5.0@UiTM context, instilling values and principles in the learning ecosystem is imperative. Imbuing *Adab* and *Amanah* in the different facets of the educational realm is vital. Technology acts as enablers, scaffolds, support and affordances; A human-driven approach is taken rather than a technology-driven approach.

The crux of Education 5.0@UiTM is **learning**, by all parties i.e students, educators, administrators and other university members. The essential goal is to nurture the Philomath – a person who loves learning. In particular, learning is connected to the student or the learner, focused on the learner, demonstrated by the learner and driven by the learner. As such the learner is seen as a whole person of whose values, beliefs, thoughts, knowledge and skills are not seen as separate fundamentals to be nurtured and trained. Dynamic technologies surrounds the learner and provides options for the learner’s core decisions of what, where, when, how, why and with whom to study. There is however the central need to understand and to have “adab or “the proper place of things” to ensure meaningful learning and an even greater connection with the Creator.
What is Education 5.0@UiTM?
The Concept of Adab and Amanah (trust) in Teaching and Learning

Simply put, ADAB is knowing ‘the proper place of things”. It is the recognition and acknowledgement of one’s proper place in relation to one’s physical, intellectual and spiritual capacities and potentials (Al Attas, 1980). In Education 5.0@UiTM, creating a sense of appreciation for knowledge and acknowledging the relationship between man, the Creator and his environment is crucial.

Learning is to take place with a clear notion of man’s relation to the creator, to fellow beings and to the environment (habluminallah- hablunminannas and habluminal’alam). These relationships must be balanced and translated into all learning domains, content and delivery.

Teaching and Learning are both amanah, entrusted upon humans so they fulfill their function as the as khalifah (vicegerent) to establish a just social order, a peaceful society and civilization on earth. Amanah is a huge contract of an individual with his society, with the animal world, with the plant world, and with the overall environment. In teaching, amanah requires accountability, personalization and adoption of an integrative approach to enhance the understanding of the centrality of the Creator.
The Lecturer and the Student

Lecturer: Why didn’t your friend come to the class for 2 consecutive weeks? After all, the rest of you are doing your presentations now. You have listened to his.

Student: He said that ‘...learning also occurs outside of the classroom.’ , what more with the technology that we have

Lecturer: I’ve said almost the same thing during my first lecture to the class! The difference was that I said...‘learning occurs beyond the 4-walls of the classroom’. In other words, ‘learning extends beyond the 4-walls of the classroom. For us, it starts in the classroom and extends elsewhere...’
So, what do you think? being absent means what? What does that imply?

Student: He is not respecting his friends
Lecturer: Yes, He should listen to your presentation. Then....?
Student: Not respecting his lecturer...And not respecting knowledge

A moment of silence...

Lecturer: If knowledge, you, others, and me are the Creations....thus most of all....
Student: ...err...He did not respect the Creator of the creations
Lecturer: Yes..He did not respect the Creator of Knowledge, and that is what ADAB is all about..
What is Education 5.0@UiTM?

**Nurturing the Progressive Thinker**

Education 5.0@UiTM seeks to nurture the progressive thinker who sees the larger picture and has solid vision of what he or she wants to achieve. He or she has a penchant for learning new things, manages a creative and analytical balance, moves outside conventional thinking, and takes responsibility of his/her destiny.

The progressive thinker is mindful of his/her environment, and his future. The progressive thinker is a person who loves and keeps learning. He or she is essentially an agent of his/her own learning.
What is Education 5.0@UiTM?

The Shift from Education 3.0 to 5.0

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<thead>
<tr>
<th>Education 3.0</th>
<th>Education 4.0</th>
<th>Education 5.0</th>
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<tbody>
<tr>
<td>Structured content</td>
<td>Emerging sense of ownership of own learning</td>
<td>Learner Driven Learning</td>
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<td>Learner centered activities</td>
<td>Learners as co-creators</td>
<td>Learners as Agents of their own learning</td>
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<td>Learner self-direct</td>
<td>Courses are built based on learning bits and micro credits</td>
<td>Learners as Partners/Collaborators</td>
</tr>
<tr>
<td>Less passive learners</td>
<td>Negotiated content &amp; assessment</td>
<td>Seamless learning – not bounded by weeks and semesters, location</td>
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Education 5.0 continues the focus on placing the ownership of learning on learners, nevertheless, the approach emphasizes also on instilling values and principles, through less-structured seamless learning. It allows learners to negotiate the content of their learning and the way they will be assessed for their learning. By giving learners more voices and choices, Education 5.0 migrates away from structured contents to seamless learning, which liberates learning from the structure of academic weeks and locations. Learning bits and microcredit-based courses will continue to support the process of the learner charting his or her own learning. However, the learner now has the option of choosing courses delivered by the best professors who are known for their scholarship and knowledge.
Knowledge is that which benefits, not that which is memorized

Imam Shafie
The five core areas to be concentrated on in Education 5.0@UiTM and the nurturing of Progressive thinking learners who are agents of their own learning are:

1) Learning that goes beyond earning good grades on campus
2) Personalization and personalized learning experience
3) Design of space to learn and to create
4) Provision of challenging tasks and content
5) Inculcation of a values-based learning culture

The core areas will support learning to know, learning to do, learning to live together, and learning to be. The ultimate goal is the development of *progressive thinkers who are who are agile, have strong principles, and possess a creative and global mindset*. 
Advocating Inspired Learning

I hear, I forget
I see, I remember
I do, I understand
I think, I discover
I feel, I value
I share, I gain

Education 5.0@UiTM will deliberate on the whole person and will provide an opportunity for him or her to learn via exciting the mind, stimulating the senses and enthusing the affective and social nature of the person. As such, learning is beyond the basic senses; it is expected to occur past the thick textbooks and the four walls of the classroom. Technology will be used to enhance learning through non-conventional delivery such as games and to link learners to other learners in different parts of the world. What is essential is to ensure the learners experience meaningful learning.
Upcoming smart machines, new emerging media, and extensive global interactivity will be the agents that will shape the different pathways for the attainment knowledge and skills in Education 5.0@UiTM. Choices of educational programs will grow allowing for the learning of only things that really matter. Completion of training will take less time as we will learn just about everything we really need to know. The plethora of delivery and learning experiences will expand granting us the personalization of our learning path supported by choosing the right connections with the right nodes.

Education 5.0@UiTM will be about intelligent, open and linked web. Current options for the learning path will continue to advance where the web will communicate with us similar with human-to-human or face-to-face communications. Learning platforms will be more humanized where they will become more ‘emotional’, reacting to the learners’ varied emotions. Personalization in Education 5.0@UiTM will not encompass only choices we make by selecting our own path, devices, time, space, context or the curriculum, it will be also getting personal with our connections.
Shifting the role of the Student:
The Three Lens Approach for Student Engagement

The banking model of knowledge transmission with knowledge created as another commodity to be transferred as efficiently as possible from sender to receiver is not supported in Education 5.0@UiTM. Students are not to wait for knowledge to be poured in, rather they are expected to provide input and give ideas to enhance their learning process. As such, a student is expected to lead in their academic and in other aspects of his/her university life. Any student engagement project or initiative must take into consideration of these three roles of the students.
Framing Education 5.0@UiTM

The elements of Education 5.0@UiTM: the foundation, the pillars, and the goal

Progressive Thinking Learners

- Inspired Learning
- Personalization

Pillars
- Coherent and Relevant Curriculum
- Innovative Delivery and Assessment
- Meaningful Learning Experience
- Transformative Learning Environment
- Inspiring Educators

Foundation
- Emerging Technologies
- Engaging Ecosystem
- Clarity of Purpose
- People-centred principles
- Positive Culture
Basic Elements Supporting Education 5.0@UiTM

Appropriating technology and focusing on the human potential in both student learning and talent development of academics is the mainstay of Education 5.0@UiTM.

Clarity of Purpose
Technology investments and decisions are directed toward executing tasks that serve a clear purpose, in this case building a learning-centric ecosystem.

Appropriate Emerging Technologies
Technology used is consistently reviewed to ensure recency and is appropriate to serve its purpose in achieving the goals set.

Engaging Ecosystem
The ecosystem must support engaged learning. It must be smart, flexible, and allow fluid movement of learners in physical and virtual space. Spaces should be designed to foster reflection, innovation, and collaboration.

Positive culture
Positive culture is vital and will permeate every aspect of Education 5.0@UiTM.

People-centred principles
The emphasis will be on the people and the humanistic perspectives.
We won't be distracted by comparison if we are captivated with purpose

Bob Golf
The Five Pillars of Education 5.0@UiTM

The premises through which the five areas that make up Education 5.0@UiTM and which can be projected are the curriculum, the learning experience, the learning environment, the educators and the delivery. Learners coming in will learn through relevant curriculum, facilitated by educators who have superb delivery techniques and be basked in a learning environment that is both enriching and exciting. Ultimately when they leave the university, they would have gone through a rewarding journey that has groomed them into societal contributors, job creators and leaders who are able to thrive in the working world.

- Coherent and Relevant Curriculum
- Innovative Delivery and Assessment
- Meaningful Learning Experience
- Transformative Learning Environment
- Inspiring Educators

Creative, innovative, adaptive, versatile professionals, job creators and leaders

Nurturing Progressive Thinking Learners who are AGENTS of their own learning
An intuitive approach is required for designing and developing a fluid, dynamic and organic curriculum. Students are prepared to face the changing world, to be able to use their existing skills and quickly learn new ones in order to be a participating member of the society. Other than the 21st century competencies, students must be socially competent, adaptive competent, digital competent and to have a high level of personal competence. To have these, the curriculum must be built upon the premises below.

**Industry and Community Relevant**

**Future proof content**

**Shared and Distributed Content**

**Expert Faculties**

**Multidisciplinary Electives and Programs**
Industry and Community Relevant

EVOLUTION OF SMART INDUSTRY-CAMPUS-COMMUNITY PARTNERSHIP

Industry-Campus-Community K-Tech Sharing
- Knowledge-Technology Sharing industry, campus and society
- Accelerate innovation and impact to society
- Innovation driven economy
- Social and ethical responsibilities in community

Industry on campus
- Bring industry to campus. Enhance the student experience and guarantee students’ satisfaction.
- Mutually beneficial

Industrial Mode
- Smart-Industrial collaboration with industry

Work-based Learning
- Structured Experiential Learning and systematic education

Innovation driven economy
To be industry and community relevant, the curriculum will be continuously designed and reviewed with input from both industry and community. A smart industry-campus-community partnership is undoubtedly forthcoming.

**EVOLUTION OF SMART INDUSTRY-CAMPUS-COMMUNITY PARTNERSHIP (SICCP)**

- Begin with small network between university and industry
- Engagement in project-based assessment of students, academic curriculum, research and innovation.
- Two ways of smart-partnership (technological change and competency-based approach)
  - through minimum 1 year students working attachment (industrial mode)
  - Industry on campus
- Industry-Campus-Community K-Tech Sharing: Evolution of SICCP produce better knowledge, technology and culture transfer cycle in multicultural and multidiscipline settings leading to social value.
- Enhance critical soft-skills required for future proof graduates
  - communication, thinking skills, learning skills
  - Personal management skills, i.e. positive attitudes and behaviours, responsibility, adaptability
  - Teamwork skills
Future Proof Content

Generative curriculum to equip graduates for life beyond graduation towards the development of personal or practical knowledge

A LEAD 2 FUTURE
Courses across discipline and campus

TRANSFORMING WORLD VIA Sustainable Development Goals
Content and issues related to SDG compulsory in all curriculum

FUTURE INDUSTRIAL REVOLUTION
Nine Pillars of Technological Advancement:
- Autonomous Robots,
- Simulation, System Integration,
- IoT, cybersecurity, Cloud, AR,
- Additive manufacturing, Big data and analytic.

HIGH END TVET (HE TVET)
Transhumanism Competency – Values, skills and competencies for living

VALUES & ETHICS
Being the crux of the person development, values and ethics will be embedded in all curricular content and delivery

TRANSDISCIPLINARY AND MODULAR BASED CURRICULUM
Transdisciplinary learning and research, engage students in community-industry supported research through capstone project, courses across discipline
Future Proof Content

HE TVET FRAMEWORK

DIRECTION
- Digital Campus
- Curriculum
- Community
- Research
- Culture

STUDENT’S ATTRIBUTES
- Innovative (IR 4.0)
- Global Mind-set
- Entrepreneurial Mind-set
- Integrity & Holistic

OUTCOMES
- HIGH GE - Transhumanism for Sustainable Development
In responding to the need for more fluid and organic curriculum, learning materials should be made more accessible to all learners with the affordances of technology. Such learning materials should be provided online to enable easy access and to encourage collaboration with diverse group of learners. With regard to this, there is a need to increase shared and distributed content for students’ seamless learning. To date, there are 485 Massive Open Online Courses developed and completed in UiTM, with another 450 of such courses to be completed and ready by end of 2018. By 2021, it is expected that there will be a proliferation of MOOCs and micro learning courses that will allow the students to have a learning buffet, with a spread of courses that can be taken out of interest or for further certification in related fields. Credit transfer from courses taken from other universities or providers will be instituted to cater for the growing spirit of ubiquitous and distributed learning. This step will significantly reduce the number of classes and at the same time will reduce the utilities cost of the university. It enables student to learn and have access to information anywhere and anytime.
NANO, MICRO, BITE-SIZED LEARNING

Learning capsules, shopping cart, shopping basket, shopping canister modules and learning buffet are terms associated to the notion of just in time, micro learning that will be supported in Education 5.0@U iTM.
Expert Faculties

**UiTM TALENT**
**UiTM FIRST**

- Each faculty with its own pool of experts can serve other faculties and campuses
- Leveraging on expertise in IoT, Robotics, Affective computing, Cloud based systems, AR, AI, 3D digital printing, animation, etc
- Working towards serving the UiTM community
- May contribute to curriculum development, innovation, and supervision
- Based on high collegiality and communality
Competent in discipline, Job creator

3F: Fast, Furious, Flexible Course Development

MULTI to TRANSDISCIPLINARY

- Flexibility and freedom to choose (personalize learning & learner progression routes)
- Multi-skill and Multi-talent

FLEXIBLE & DYNAMIC ECOSYSTEM

MULTIDISCIPLINARY ELECTIVE COURSES

Wisdom Wednesday: cross faculty, cross campus, multimodal delivery

Faculty or campus offer multidiscipline elective course across field.
Examples: Malaysian cinema, robotic, sports. music, health care, Animation, multimedia, Islamic astronomy, data analytic etc.
A Multidisciplinary Program Development Model

The model advocates a dynamic and progressive academic program development. It is made possible by the provision of multidisciplinary elective courses from the different faculties in UiTM. The central non-changing element is the values and Qalb based practices. With the advances effected by IR 4.0, and high technology, each program can be tailored to be multidisciplinary with a huge number of courses to choose from, that will fit current and future needs.
Technology is nothing. What’s important is that you have faith in people, that they’re basically good and smart, and if you give them tools, they’ll do wonderful things with them.

Steve Jobs
Pillar 2: Innovative Delivery And Assessment

Delivery will be the most exciting aspect in Education 5.0@UiTM as technology proliferates and demands from learners increase. Engaging the whole person is still the mainstay of this process. This will be done by reinforcing several elements as bases in delivery.

A student is not a statistic

Students will not be treated as just numbers to indicate the success for a faculty in terms of graduate employability or graduating on time; each student is different and his/her learning needs and preferences are different. Thus the necessity for diverse delivery and multiple representations of teaching.

50-30-20 (experience – peers- formal )

Formal sessions involving direct instructions are reduced. The thrust will be on experiential learning.

Immersive, Brain based , active learning

Techniques involving immersive, active and brain-based learning will be rudimentary in learning sessions.

Efficient, flexible ,ubiquitous technology

This is the fundamental aspect of Education 5.0@UiTM delivery. Technology will not only act as the conduit for efficient transfer of content but will enhance learning and initiate creative output and significant outcomes.

Multiple Means of Representations

Learning will be designed, delivered and represented in various forms. The traditional classroom teaching will be a thing of the past.

Contemplative approach

This entails integration of introspection and experiential learning into academic study. It supports academic and social engagement, develop self-understanding as well as analytical and critical capacities, and cultivate skills for engaging constructively with other competencies.

Life wide and lifelong learning

The notion of both life wide and lifelong learning will perpetuate through the delivery of courses. In essence, delivery method will move away from the didactic mode to include learners actively seeking information and synthesizing them into knowledge.

Global integration

It is crucial to integrate global standpoint within the delivery of courses. This allows for the development of a wider perspective, going beyond local context.
Effective, Flexible Technology
Supporting Ubiquitous and Collaborative Learning in Education 5.0@UiTM

Augmented Reality
Virtual Reality
Mobiles & IoT
Learning-on-cloud Across platform learning and Cloud based Tutor Space
Learning on Demand
Rethinking Delivery is a module developed by UiTM lecturers that addresses progressive changes that can be incorporated in a lecturer’s training on Instructional delivery. It encompasses case studies and best practices, tried and tested in UiTM with evidence of paramount success. The practices can be emulated and adapted by many others. The uniqueness of the module is its growing content, as more academics share their own practices. Rethinking delivery will be offered as a MOOC.
Forging ahead with Forward Thinking Assessment

Education 5.0@UiTM seeks to re-orientate assessments beyond the standardized tests and final examinations and to establish evidence based learning. This calls for intuitive technology and adaptive approach to measuring learning outcomes.

**Evidence-Based**
Engaging in evidence-based teaching and learning by using the built-in analytics of games, simulations, and mobile apps.

**Data Driven Learning & Assessment**
The growing focus on measuring learning describes a renewed interest in assessment and the wide variety of methods and tools to assess students.

**Learning Analytics**
The collection, analysis, and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs.

**Learning Experience**
To encourage collaboration and reinforce real world skills, universities are experimenting with policies that allow for more freedom in interactions between students when working on projects and assessments.

**Interdisciplinary Approach to Assessment**
An integrative approach that encompasses components from several courses. This allows multiple perspectives and an interdisciplinary approach for learning and evaluating. Collaboration is crucial when using this approach.
Type of Alternative Assessment

Alternative assessment, also called authentic or comprehensive assessment, refers to all sorts of assessment that measure student knowledge, skills, and values in performing complex tasks that relate to intended learning outcomes.

Self/Peer-based Assessment

Group-based Assessment

Portfolio-based Assessment

Performance-based Assessment

Negotiation-based Assessment

Adaptive Assessment

The embedding of maker culture in higher education and students as an active contributors to the knowledge ecosystem. The assessment should be designed based on the real context situation (articulate what they have learned and connect it to workforce needs). They learn by experiencing, doing, and creating, demonstrating newly acquired skills in more concrete and creative ways.

KEY ELEMENTS

CULTURE
Establishment of a classroom culture that encourages interaction and the use of assessment tools.

TRACKING & PROGRESS
Establishment of learning goals, and tracking of individual student progress toward those goals.

ACTIVE LEARNING
Use of varied approaches to assessing student understanding. Active involvement of students in the learning process.

FEEDBACK
Feedback on student performance and adaptation of instruction to meet identified needs.

7 Interrelated Benefits of Alternative Assessment
- Promote active debate on the nature of teaching, learning, and assessment
- Strengthen professionalism
- Strengthen learner-centred approaches
- Diversify and deepen approaches to programme evaluation for accountability
- Balance structure and flexibility
- Devote the necessary resources—people, time, and money
- Strengthen the knowledge-base
Experience fails to teach when there is no desire to learn.

George Bernard Shaw
Pillar 3: Meaningful Learning Experience

A meaningful learning experience is the sum of a holistic set of dimensions – agency, diversity, flexibility, inclusivity, respect and relevance.

**Experience and interaction mediate Meaningful Learning**

The learning journey is immersive and exciting by linking to the industries and society. Students are exposed to the real world and hands-on experience in preparing them to meet the 21st century challenges.

**Student as an agent of learning**

Meaningful learning is constructed by learners and facilitated by educators. Technology utilization would enhance the learning process via various platforms.

Inclusivity and Respect

Education 5.0@UiTM seeks to respect diversity of the learners by providing them with flexible opportunities and chances according to their abilities and needs. Inclusive education will lead to meaningful learning experience. The whole learning design will be based on UDL (universal design of learning).

**Diversity and Flexibility**

The delivery is flexible and dynamic which is easily diversified to cater for the differences in learner needs and preferences. This is also to respond to the requirements of numerous fields and academic programs.

**Relevance**

Learning experience is emphasized beyond the intelligence quotient (IQ), Emotional Quotient (EQ) and Social Quotient (SQ) elements. Adaptability Quotient (AQ) is the vital element for learners facing with the 21st century challenges.
Meaningful Learning Experience

Acculturation is important. In Education 5.0@UiTM, learning is intuitive and adaptive. Learning is also seamless and learning can happen anywhere, anytime, from any device, with and from anyone, and through any path. Thus learning experienced can be designed to be diverse and of variety.

Learning online
- Resource based learning, MOOCs, Blended Learning

Learning from the experts
- Industry Experts
- Experts from other universities
- Experts from relevant organizations

Learning with and from peers
- Peer tutoring/assessment
- Learning Communities
- Intercampus network

Learning at a global platform
- Global learning
- Virtual mobility & exchange

Learning in the community
- Field experience, Service learning, community based learning, museum learning

Learning at the workplace
- Work study, practicum, work based learning
Enhancing Learning Experience

Learning Experience Survey (LES) to be an instrument used to gauge students' learning experience in UiTM. An initial survey involving 4800 respondents provides the baseline – the instrument will be administered yearly to final year students.

Adaptability Quotient (AQ) is a vital element for learners facing the 21st century challenges. The instrument will be developed with input from industry and will be used to gauge first year and graduating students’ adaptability quotient starting mid 2019.

Synchronous sessions supported by technology will be promoted to allow learning with national and international experts as well as home grown experts. This initiative gives opportunities to the learners to gain state of the art knowledge and current practices in the field.

Learning through taking on-campus courses, across campus courses, and through mobility programs (physical and virtual mobility) will be emphasized. Students are given the opportunities to experience learning with learners from other universities and / or countries when they join video conferences, online classes, webinars and MOOCs.
High Impact Educational Practice: Global Learning

GLOBAL LEARNING WITHOUT A PASSPORT

Global learning instils a more expansive understanding and global consciousness about various/ particular field of studies where students learn, interrogate and reflect about the world without physically crossing a geographic border. It is about moving minds and not bodies through virtual mobility and exchange, lectures, seminars via various synchronous online platforms.

Education 5.0@UiTM espouses global learning through taking on-campus courses, real physical mobility and virtual mobility programs. What is of utmost important will be students are given the opportunities to explore cultures, life experiences and worldview different from their own. It allows an appreciation of diversity and awareness of multiple perspectives.
In global learning, students move from global awareness to having a global perspective and eventually, global engagement

1. Awareness - Knowledge of the interrelatedness of local, global and international as well as intercultural issues, trends and systems
2. Perspective - Ability to construct multi perspective analysis of local, global and international issues and intercultural problems
3. Engagement - Willingness to engage in local, global and international as well as intercultural problem solving

Students to be encouraged & motivated to engage in global learning. They are disposed to being more critical, reflective, open minded, inquisitive, self aware, globally aware, connected, creative, willing to engage.

Allocate the necessary time, training & resources to support the development of lecturers and provide good quality learning opportunities.

Lecturers to design & deliver global learning opportunities for students as well as to nurture and enthuse students. Lecturers are also (well-) connected to people in specialized content.
Especially in technology, we need revolutionary change, not incremental change.

Larry Page
Transformative learning environment is the expansion of unique and creative learning through adaptive immersive technology to enable effective and meaningful learning. Transformative learning environment involves deep experiences, structural shift in the basic premises of thought, feelings, and actions among academicians and UiTM students to change their beliefs, attitudes and emotional reactions towards UiTM Education 5.0 @UiTM.

The UiTM Data Analytics Lab is a hub for advanced data analytics projects, supporting researchers and helping academic and industries businesses compete on a global scale. Currently, UiTM has 13 Data Analytics Lab on various campuses in Malaysia. The lab applies text, user and data analytics research to academic/industry-driven projects that solve problems and provide efficiencies in key areas including education, health, logistics, smart cities, social environment, humanity and security.

Smart Classrooms are technology enhanced classrooms that foster opportunities for learning by integrating with technology, such as computers, devices, specialized software, networking, and audio/visual capabilities. Smart Classroom Services leads the support, design and planning for Active, Relevant, Interactive and Fun learning (ARIF). Currently UiTM have 19 ARIF Classroom and will be 50 at the end of 2018.
New ideas about learning spaces represent a significant opportunity for UiTM to make learners and learning more successful. Through the application of information technology, today's learning spaces have the potential to serve the new learning paradigm and at the same time meet the needs and expectations of the most recent generation of students. Flexible learning spaces enable students to match learning spaces with physical and digital spaces in which to frame their focused experience. Besides, learning through social media promotes self-directed and active learning. Social media also allows students more freedom to connect and collaborate beyond the physical classroom, which means students anywhere can start to experience their own learning rather than passively absorbing information.

UiTM makerspace is an industry sponsored facility for making, exploring and sharing that uses high tech tools. UiTM have Experiential Lab and Entrepreneurial Cafe to foster maker mindset of creating something out of nothing and exploring the interest that's at the core of a makerspace.
Dual system Learning Management System

Part of the vital attributes for transformation into Education 5.0®@UiTM is the learning environment that learners are learning in. The Learning Management System (LMS) is commonly developed to focus on providing an ideal environment for effective online learning, fostering the learner-instructor connection as well as the provision of support and communication platform to the learners. With the borderless space that the World Wide Web is offering, it would make more sense to allow communication and collaboration of learners with more diverse group of people, which is seen as a way to inculcate global citizenship among learners. Hence, one initiative is to allow duality within UiTM's LMS. This provides the instructor with options on whether to offer his/her course to anyone from anywhere around the world or limit the course to only UiTM registered students.
“True teachers are those who use themselves as bridges over which they invite their students to cross; then, having facilitated their crossing, joyfully collapse, encouraging them to create their own.”

Nikos Kazantzakis
Pillar 5: Inspiring Educators

Great educators make students WANT TO LEARN…

It is the University’s aim for lecturers to be inspired educators; those with great qualities, proactive in learning and enhancing abilities.

All gained knowledge, skills and abilities from academic and research work must be positively brought in and shared together in class.

Together, a flexible yet positive and fun workplace need to be created. Such a workplace environment may stimulate strong work ethics, high productivity and upright value of the organization. It is also cherished that an enhanced workplace spiritually encompasses values of individual-based adab and amanah.

I cannot teach anybody anything. I can only make them think. – Socrates –
Educations 5.0 will facilitate the university in producing lecturers and educators who HOLISTICALLY possess specialist knowledge, practical skills, critical and creative thinking skills, communication and leadership skills, information technology proficiency, and simultaneously are highly committed, compassionate, ethical, professional, entrepreneurial, socially responsible and practice lifelong learning.

Inspiring educators in UiTM are basically Professors on demand; they are highly sought for their knowledge and their ability to deliver, to generate scholarly scrutiny, to influence learning and to spark interest in doing good for society and the environment.
Essential Roles and Attributes of an Inspiring Educator

QUALITY EDUCATORS
QE-UiTM FRAMEWORK

Academic Qualification
- Represents the level of academic qualification. Academics are expected to enhance their academic qualification to the highest level.

Personal Character
- Respectable level of personal behaviour, attitudes and values in being an academic that encompass elements of integrity, professionalism and high moral values.

External Attachment
- Experiences obtained from working with the industry, sabbatical stint with other higher education institution or post-doctoral training.

Teaching and Learning
- Knowledge of subject matter gained from teaching experience.

Academic Supervision
- Supervisory experience of both the undergraduate and postgraduate students.

Research and Innovation
- Research and innovation performance based on the expectation and guidelines of the national reference as well as the institution.

Leadership and Management
- Leadership and management skills obtained from experiences in holding formal leadership roles in the institution, including self-assessment on the level of acquired skills while in tenure.

Murabbi
- Knowledge of subject matter gained from teaching experience.
The QL-UiTM framework presents the general guidance for UiTM lecturers’ professional development and training plan. It targets all lecturers to establish and acquire sufficient academic-teaching related skills towards becoming quality educators.

In general, it aims at strengthening the lecturers’ educational and pedagogical- andragogical- heutagogical skills.

- The programme is mandatory for newly lecturers at UiTM.
- Lecturer Training Programme is also offered to lecturers who do not have any prior training in education.

The programme runs over on demand, requires several hours of work by the participant and consists of teaching and learning, research and innovation as well as self development elements.

Lecturers will be trained the relevant teaching strategies with higher education expertise and also cultivating the flexibility of face-to-face or blended course delivery and assessment techniques through technology tools.

Lecturers need to acquire a substantial role that is more advanced than merely being described as a facilitator of experiential learning.

Lecturers are highly encouraged to get engaged in a process of scholarly leading for the betterment of each individual student’s learning outcomes.
Training for Educators

In Education 5.0@UiTM, training for lecturers will place emphasis on progressive skill set and classroom innovations.

The Top 30% (Innovators)
“Feed the hungry” concept of training on advanced learning technologies and delivery methods

The Mass- 70%
Investment in educator training focused toward developing facilitator mindset and heutagogy

POLICY
Compulsory training hours on innovative delivery and assessment for all lecturers

Triad of instructor teaching evaluation to be implemented (Self – Peer and student evaluation)

ACCESS AND SUPPORT
MakerSpace support for innovators

Professional Development modules for academics staying in the Teaching and Learning track

Design and development research grants for innovators
Chapter 3
Deploying and Sustaining Education 5.0@UiTM

This chapter discusses general strategies for deploying Education 5.0@UiTM as well as specific strategies related to governance, leadership, funding, infrastructure and info-structure that are pertinent in making Education 5.0@UiTM a success. The challenges are also presented in the chapter.
## Structure and Enablers

### Policies, Guidelines and Workable Models
1. Policies, guidelines and workable models to support new impending practices that cast a change from the norm are essential.

### Technology and Accessible Resources
2. Content to be developed; Cloud based systems, Artificial Intelligence, IoT, Blockchain, VR, AR, dronagogy and other appropriate technology must be invested in.

### Experts and Support system
3. Technology and delivery experts and support system personnel must be within reach and accessible. They too must have the passion to contribute. Mechanism for tracking and constant feedback is rudimentary.

### Leadership, Governance and Funding
4. Transformative leaders, good governance and sustainable model for funding are highly required to move Education 5.0@UiTM.

### Partnership
5. Partnerships with the industry and societies is a sure way of staying abreast of changes and gaining significant input.

### Workplace Training and Learning on Demand
6. Awareness drive, training, re-training and upskilling are vital to ensure both internalization and adoption by academics.

### Designated Centres
7. Centre of Innovative Delivery and Learning Development institute of Multidisciplinary Studies.
The Centre for Innovative Delivery and Learning Development (CIDL) is a Virtual Future Learning Centre. UiTM has 4P (Platform Pembangunan Penyampaian & Pembelajaran) program which provides access to academics for virtual future learning centre. The 4P program explores the effectiveness of delivery and learning designs with pedagogy, andragogy and heutagogy methods using new technologies including Augmented Reality (AR) / Virtual Reality (VR), Mixed Reality (MR), Robotics, Big Data Analytics, Apps, Artificial Intelligent, Internet of Thing (IoT), Blockchain and Gamification to create a creative learning experience.

CIDL spearheads innovation in delivery and learning in line with the latest technological advances and have successfully launched a digital transformation. The program develops appropriate training for academic staff to forefront the new era of digital campuses. The system will monitor the effectiveness of delivery and learning through analytical data from Student feedback online (Sufo), Entrance-Exit Survey (EES), Propens and Closing-da Loop (CDL) systems.

- Flat Structure
- Cloud Based Platform
- Organic & Dynamic
Centre for Innovative Delivery and Learning Development

Flat Structure
- The Head of Delivery and Learning Development Monitors Collaborative Groups which consist of expert representative from Augmented Reality (AR) / Virtual Reality (VR), Mixed Reality (MR), Robotics, Big Data Analytics, Apps, Artificial Intelligent, Internet of Thing (IoT), Blockchain and Gamification. Collaborative groups will plan, design, develop, implement, and evaluate the latest learning technology to extent the effectiveness.

Cloud Based
- UiTM typically utilizes cloud-based platform as a way to increase capacity, enhance functionality of 4P program activities or add additional services on demand without having to commit expensive infrastructure costs and connect passionate UiTM Academics. Rigorous internet based collaborative activities to promote innovative delivery and learning that befit the era of IR4.0.

Collaborative groups
- UiTM academics grow in numbers as well as Collaborative Groups. Some may dissolve as technology evolves to assure innovative delivery and learning meets the goals while saving money and generating resiliency for infinity ecosystem in UiTM education.
Institute of Multidisciplinary Studies

The Institute of Multidisciplinary Studies will be established in three phases and will offer courses and programs that are interdisciplinary and interdepartmental, spanning both the sciences and humanities. The institute is expected to provide ample opportunities for the development of holistic students with excellent knowledge of humans and their surroundings.

**First phase:**
- Well-rounded knowledge and skills in facing the unknown challenges of the future and digital world by offering multidisciplinary and transdisciplinary courses across faculties and campuses. Various course options from science and health science to non-sciences background, arts and design, music and film, finance and hospitality, data analytics etc. Ultimately students will graduate and participate as multiskilled and multi-talented citizens.
- Thinking skills such as critical thinking, creative thinking, design thinking and quantitative reasoning/mathematical thinking to be included.

**Second phase:**
- Comprehensive humanities-related knowledge program such as in the area of philosophy, Philosophy/History/Anthropology/Global Affairs/Literature/Arts and Humanities/Environmental/Astronomy.
- Great Leadership skills: sincere, integrity, communication, loyalty, decisiveness, managerial competence, empowerment.
- A university Chancellor’s Scholar program that focus on leadership attributes among students will be developed and run at the Institute

**Third phase:**
- Transdisciplinary program: joint cluster or discipline, hybrid program that will produce new discipline such as Halal Technologist (combination of scientist, sharia and management)
Partnerships

Partnership is paramount to move Education 5.0@UiTM and to ensure a thriving learning ecosystem. The quadruple helix approach is a synergistic university-industry-community-government collaboration that drives innovation and development that ultimately benefits the community. What is important is the action of placing students at the core of any undertakings. Employability and branding of graduates should be embedded in the integration of systems involving the industry, alumni, government and entrepreneurs with community sustainability. Both curriculum and design of the learning experiences must be aligned to the industry’s and society’s needs. Thus the necessity to ensure students and lecturers are constantly exposed to the industry and participating in the community. Several means of partnerships will be prevalent in Education 5.0@UiTM.

Global Universities
Faculty partnerships with global universities to develop offerings for liberal curriculum programs, MOOCs and sharing of expertise. Faculty to internationalize their courses and programs.

Industry
Industry on Campus
Maker space and labs provided by industry. Students gain industrial experience on campus in addition to internships and practical trainings. Students’ work/product directly linked to the relevant industry.

Community
Partnership and involvement in the community
Driving education to the community’s doorstep; and benefiting society at large.

Alumni
Working with alumni to stay abreast of change and to spur innovation through think forward mindset. The alumni understands the university and have a comprehensive view of its potential and needs.
Leadership, Governance and Funding

- A sufficient and sustainable funding model
- A sufficient and sustainable staffing model
- Active support from the university leadership
- Active support from the faculty and campus
- Effective engagement of the entire university community
- Dedicated leadership of the area
- Develop leadership capacity in staff and students – talent pool for university’s leaders
- Prepare a technology-led strategy that drives the entire functioning of the university
- Crowd funding for projects
- More research-based funding from local society and industry to develop solutions that solve education issues and challenges
- Adequate and continuous training for the university community
- Cultivating innovative talent – should not only focus on training knowledge-based skilled staff, but more on cultivating innovative talent
- Develop skills of academicians, administrators and university leaders to work toward developing talent and capabilities in addressing Education 5.0@UiTM
Education 5.0@UiTM

Selected Initiatives for 2019 -2021

1. Curriculum, Delivery and Assessment
2. Learning Experience and Learning Environment
3. Educators
## Focus Areas (2019-2021)

<table>
<thead>
<tr>
<th>PILLAR</th>
<th>STRATEGY</th>
<th>FOCUS</th>
<th>STRUCTURE and ENABLERS</th>
<th>RESPONSIBILITY</th>
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<tbody>
<tr>
<td>Coherent and Relevant Curriculum</td>
<td>Design and deliver curriculum that propounds values and future thinking, with strong linkages and exposure to the real world</td>
<td>Industry and Community Relevance&lt;br&gt;Value based curriculum&lt;br&gt;Future proof Content - Multidisciplinary &amp; Transdisciplinary&lt;br&gt;HE TVET</td>
<td>Policies, Guidelines and Workable Models&lt;br&gt;Experts and Support System&lt;br&gt;Designated Centre: *Institute of Multidisciplinary Studies&lt;br&gt;Partnerships</td>
<td>Academic Affairs Division&lt;br&gt;InED&lt;br&gt;ICAEN</td>
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<tr>
<td>Innovative Delivery and Assessment</td>
<td>Develop technology driven flexible delivery and recalibrate assessments that support personalized and inspired learning</td>
<td>Flexible Delivery - MOOCs, microcreds&lt;br&gt;Classroom innovations&lt;br&gt;Alternative and Authentic Assessment&lt;br&gt;Universal Design for Learning</td>
<td>Policies, Guidelines and Workable Models&lt;br&gt;Technology and Accessible Resources&lt;br&gt;Workplace Training &amp; Learning on Demand&lt;br&gt;Designated Centre: *Centre for Innovative Delivery and Learning Development&lt;br&gt;Leadership, Governance and Funding</td>
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<td>Meaningful Learning Experience</td>
<td>Design and implement learning beyond the traditional classroom — anywhere, anytime from anyone, anyhow, any mode and using any device</td>
<td>Mobility&lt;br&gt;Global Learning&lt;br&gt;Learning beyond the classroom&lt;br&gt;International and local Experts in UiTM&lt;br&gt;Classroom&lt;br&gt;Adaptability Quotient</td>
<td>Policies, Guidelines and Workable Models&lt;br&gt;Technology and Accessible Resources&lt;br&gt;Workplace Training &amp; Learning on Demand&lt;br&gt;Leadership, Governance and Funding</td>
<td>Academic Affairs Division&lt;br&gt;InED, ILD, OIA&lt;br&gt;InED&lt;br&gt;iCAEN&lt;br&gt;Student Affairs Division</td>
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<td>Transformative Learning Environment</td>
<td>Expansion of unique and creative learning through the provision of learning spaces and adaptive immersive technology</td>
<td>Smart classrooms&lt;br&gt;Big data labs&lt;br&gt;Maker space&lt;br&gt;Dual system LMS</td>
<td>Technology and Accessible Resources&lt;br&gt;Workplace Training &amp; Learning on Demand&lt;br&gt;Designated Centre&lt;br&gt;Partnerships</td>
<td>Academic Affairs Division&lt;br&gt;ILD&lt;br&gt;InED&lt;br.UiTM Facility</td>
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<td>Inspiring Educators</td>
<td>Develop excellent academics with relevant skill sets, and with stout principles</td>
<td>Competencies &amp; skill sets of Educator 5.0&lt;br&gt;Professional development and In service training for UiTM lecturers&lt;br&gt;Professors in demand</td>
<td>Workplace Training &amp; Learning on Demand&lt;br&gt;Policies, Guidelines and Workable Models&lt;br&gt;Technology and Accessible Resources&lt;br&gt;Designated Centre</td>
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<td>PILLAR</td>
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<td>Coherent and Relevant Curriculum</td>
<td>Design and deliver curriculum that promotes values and future thinking, with strong linkage s and exposure to the real world</td>
<td>❑ 1 Smart-industrial-community collaboration Framework</td>
<td>❑ 10% of Diploma program offered are HE TVET</td>
<td>❑ Transdisciplinary/ Hybrid And Modular Based Curriculum started for 3 Programs</td>
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<td>❑ Multidiscipline and 4IR elective courses across campuses through Wisdom Wednesday</td>
<td>❑ 3 Industry on campus</td>
<td>❑ Global learning elements/modules embedded in 100% of final year courses</td>
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<td>❑ Credit transfer available for 3 UiTM MOOC</td>
<td>❑ Curriculum, teaching, MOOC and faculty partnerships with local and global universities : 10 Partnerships</td>
<td>❑ Credit transfer available for all UiTM MOOC</td>
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<td>❑ Establishment of the Institute of Multidisciplinary Studies</td>
<td>❑ A LEAD 2 FUTURE: 200 Multidiscipline and 4IR elective courses renowned professors/experts in the area</td>
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<td>❑ Inception of the Chancellor Scholars Program</td>
<td>❑ Chancellor Scholars Program begin</td>
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<td>❑ 5 Elective courses individually developed and offered by renowned professors/experts in the area</td>
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</table>
| Innovative Delivery and Assessment   | Develop technology driven flexible delivery and recalibrate assessments that support personalized and inspired learning | ❑ 1 Policy on flexible learning and teaching  
❑ Augmented Reality and Virtual reality for T & L introduced at all faculties and campuses  
❑ 1 Universal Design of Learning module developed at ILD  
❑ E-portfolios as alternative assessment at 5 faculties  
❑ 1 Centre for Innovative Delivery and Learning Development starts operation – minimum 4 active Collaborative Groups (CG) | ❑ 1 Learning Development Specialist appointed for all main campuses  
❑ A 3 module-training for 13 Learning Development Specialists conducted  
❑ Micro learning and credit transfer for open elective courses offered at the Institute of Multidisciplinary Studies  
❑ 100k Grants for Design Based Research | ❑ Flexible learning programs with multiple entry and exit points offered at INED  
❑ Assessment on demand at 5 faculties  
❑ Negotiated Assessment at all faculties  
❑ E-portfolios as alternative assessment at all faculties  
❑ Centre for Innovative Delivery and Learning Development at full swing – minimum of 12 active Collaborative Groups (CG) | Academic Affairs Division, ILD, InED, Faculty of Education IRMI  
Faculties and campuses |
| Meaningful Learning Experience       | Design and implement learning beyond the traditional classroom – anywhere, anytime from anyone, anyhow, any mode and using any device | ❑ Findings from Learning Experience Survey (LES) to be reported in Senate annually starting Jan 2019  
❑ Learning across campuses at 3 faculties  
❑ Measure for Adaptability Quotient (AQ) pilot tested | ❑ Virtual mobility program for students: Min 5 faculties  
❑ Global learning elements/modules embedded in 50% of final year courses | ❑ Learning across campuses at all faculties  
❑ Global learning elements/modules embedded in 100% of final year courses | Academic Affairs Division, ILD, OIA, InED, iCAEN, Student Affairs Division  
Faculties and campuses |
## Focus Areas (2019-2021)

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<td>Transformative Learning Environment</td>
<td>Expansion of unique and creative learning through the provision of learning spaces and adaptive immersive technology</td>
<td>❑ All (100%) smart classrooms actively used</td>
<td>❑ BYOD on all main campuses</td>
<td>❑ Digital campus in full swing</td>
<td>Academic Affairs Division</td>
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<td></td>
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<td>❑ Maker spaces on all main campuses</td>
<td>❑ Mobile device for students program offered at all main campuses</td>
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<td></td>
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<td>❑ Improved wireless connectivity at all campuses (2GB/s)</td>
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<td>UiTM Facility</td>
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<tr>
<td>Inspiring Educators</td>
<td>Develop excellent academics with relevant skill sets, and with stout principles</td>
<td>❑ Statement of Principles launched</td>
<td>❑ Learning analytics solutions used for all curriculum development</td>
<td>❑ QL system launched</td>
<td>Academic Affairs Division</td>
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<td>❑ 1 Policy on mandatory training hours in development and delivery approved</td>
<td>❑ 5 Learning on demand online modules for lecturer’s CPD started</td>
<td>❑ Lecturer mobility in place</td>
<td>ILD</td>
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<td>❑ Revamping Basic Teaching Courses(KAP) - 100% revised</td>
<td>❑ Award for Innovative Curriculum and Learning Design launched</td>
<td>❑ Cross university teaching: 15 academics involved</td>
<td>InED</td>
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<td>❑ Learning design starter pack for all lecturers developed</td>
<td>❑ 1 Policy on Learning Design and Delivery for the purpose of confirmation</td>
<td>❑ Educator 5.0 certification : 2000 academic staff certified</td>
<td>Faculty of Education</td>
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<td>❑ 1 Qalb based instructional leadership module developed</td>
<td>❑ Educator 5.0 certification : 800 academic staff certified</td>
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<td>❑ 1 Workshop on Instilling Adab and Professionalism in the classroom for Educators</td>
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<td>❑ Implementation of Educator 5.0 certification starts : Minimum 40 academic staff</td>
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Projects and Timeline
Curriculum, Delivery and Assessment

2019
- 1 Smart-industrial-community collaboration Framework
- Multidiscipline and 4IR elective courses across campuses through Wisdom Wednesday
- 1 Policy on flexible learning and teaching
- Credit transfer available for 3 UiTM MOOC

Jan - June

2020
- 10% of Diploma program offered are HE TVET
- 3 Industry on campus
- Global learning elements/modules embedded in 50% of final year courses

Jan - June

2021
- Transdisciplinary/ Hybrid And Modular Based Curriculum started for 3 Programs
- Global learning elements/modules embedded in 100% of final year courses
- Credit transfer available for all UiTM MOOC
- Assessment on demand at 5 faculties
- Negotiated Assessment at all faculties

July - Dec
- Establishment of the Institute of Multidisciplinary Studies
- 5 Elective courses individually developed and offered by renowned professors/experts in the area
- E-portfolios as alternative assessment at 5 faculties

July - Dec
- Curriculum, teaching, MOOC and faculty partnerships with local and global universities: 10 Partnerships
- A LEAD 2 FUTURE: 200 Multidiscipline and 4IR elective courses renown professors/experts in the area
- Chancellor Scholars Program begin

July - Dec
- Global learning elements/modules embedded in 100% of final year courses
- Credit transfer available for all UiTM MOOC
- Assessment on demand at 5 faculties
- Negotiated Assessment at all faculties

Jan - June
## Projects and Timeline

### Learning Experience and Learning Environment

<table>
<thead>
<tr>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>- All (100%) smart classrooms actively used</td>
<td>- Micro learning and credit transfer for open elective courses offered at the Institute of Multidisciplinary Studies</td>
<td>- Flexible learning programs with multiple entry and exit points offered at INED</td>
</tr>
<tr>
<td>- Augmented Reality and Virtual reality for T &amp; L introduced at all faculties and campuses</td>
<td>- Maker spaces on all main campuses</td>
<td>- Digital campus in full swing</td>
</tr>
<tr>
<td>- Findings from Learning Experience Survey (LES) to be reported in Senate annually starting Jan 2019</td>
<td>- Virtual mobility program for students: Min 5 faculties</td>
<td>- Learning across campuses at all faculties</td>
</tr>
</tbody>
</table>

### July – Dec

- 1 Universal Design of Learning module developed at ILD
- Learning across campuses at 3 faculties
- 1 Centre for Innovative Delivery and Learning Development starts operation
- Measure for Adaptability Quotient (AQ) pilot tested

### July – Dec

- BYOD on all main campuses
- Mobile device for students program offered at all main campuses
- Improved wireless connectivity at all campuses (2GB/s)
# Projects and Timeline

## Educators

<table>
<thead>
<tr>
<th>Year</th>
<th>January - June</th>
<th>July - December</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statement of Principles launched</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Policy on mandatory training hours in development and delivery approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revamping Basic Teaching Courses (KAP) - 100% revised</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>1 Learning Development Specialist appointed for all main campuses</td>
<td>Learning analytics solutions used for all curriculum development</td>
</tr>
<tr>
<td></td>
<td>Training for 13 Learning Development Specialists</td>
<td>5 Learning on demand online modules for lecturer’s CPD started</td>
</tr>
<tr>
<td></td>
<td>100k Grants for Design Based Research</td>
<td>Award for Innovative Curriculum and Learning Design launched</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Educator 5.0 certification: 800 academic staff certified</td>
</tr>
<tr>
<td>2021</td>
<td>QL system launched</td>
<td>QL system launched</td>
</tr>
<tr>
<td></td>
<td>Lecturer mobility in place</td>
<td>Lecturer mobility in place</td>
</tr>
<tr>
<td></td>
<td>Educator 5.0 certification: 2000 academic staff certified</td>
<td>Educator 5.0 certification: 2000 academic staff certified</td>
</tr>
<tr>
<td></td>
<td>Cross university teaching: Minimum 15 academics involved</td>
<td>Cross university teaching: Minimum 15 academics involved</td>
</tr>
</tbody>
</table>
In UiTM, size is both a challenge and an opportunity.
Challenges

Challenges are numerous and amassed from the volume of responsibilities and multiple campus logistics. In general, challenges faced may be seen in managing change, managing communication flow and managing heftiness.

Managing change
• Acculturation of technology - Changing the paradigm and the static mindset
• Changing and improving ways of doing
• Rewarding and defining success
• Financial and technical risk

Managing communication flow
• Sustaining efficient knowledge transfer
• Scaling up innovation
• Deployment of new ideas
• Internalization

Managing heftiness
• Empowerment vs Highly supervised performance
• Internal politics
• Workforce competencies
• Work Overload
Challenges

EDUCATORS
• Attitude of some lecturers who are resistant to change in T&L approach and method.
• Outdated skills in T&L technology among the lecturers.
• Lack of pedagogical skills among new lecturers.
• Lecturers are unequipped with psychology knowledge to deal with and educate the new generation who are exposed to “Adverse Childhood Experience” (ACE).
• Lack of knowledge to teach students with special needs.

STUDENTS
• Students from disadvantaged background who have no means of financial support.
• Negative culture and attitudes; complacent, too dependent, fear to the unknown

NON ACADEMICS
• Practice of negative work culture; refuse extra tasks, refuse to learn new things, non-competitive, complacent.
• Rigid job scope.
• Negative perception toward Education 5.0@UiTM among head of departments and units thus, being unsupportive.
Challenges

INFRASTRUCTURE and INFOSTRUCTURE

- Low speed and limited coverage of internet access and wifi.
- Insufficient number of smart classrooms and big data labs.
- Non-ideal condition of lecture rooms.
- Non-strategic location of campuses; far from industry.
- Insufficient educational facilities for students with special needs

- Digital divide
- Possible gaps when access is not equitable

MANAGEMENT AND ADMINISTRATIVE

- Rigid, inflexible and outdated regulation, circulars, administrative instructions, expenditure rates and university procedures unsuitable for Education 5.0@UiTM
- Weak alumni management
Strategize.
Deliver.

“There is no shortcuts to any place worth going”
Beverly Sills
Effecting Education 5.0@UiTM: The 5C Strategy

With the looming challenges, several strategies need to be in place in order to move Education 5.0@UiTM. The current mindset and readiness of the academics and the students to move away from their traditional approach to teaching and learning must be scrutinized in order to bring new perspective and practices. Champions are required; communication of initiatives and its philosophy is crucial so people will move readily from just being aware to accepting and participating in the changes. No one should work in isolation; with collaborative and collective effort, a culture of innovation will naturally emanate. The university must also be generous in rewarding and acknowledging academics who respond well and who work to champion the cause.

01 CHAMPION
Champions at the faculties and campuses.

02 COMMUNICATION
Moving from awareness ---- acceptance --- making it second nature

03 COLLABORATION & COLLECTIVE EFFORT – Breaking down the walls

04 CULTURE
Instilling culture of optimism, culture of innovation, passion and seamless learning, student at the core

05 CREDIT & COMPENSATION
Acknowledgement, Credits, Rewards, Grants for both academics and students
CHAMPION

Educators
- Build a group of champion academicians coming from different faculties and branches in emerging areas
- Appoint Learning Development Specialist at branch level

Non-academics
- Appoint champions for Education 5.0@UiTM from all units and departments
- Ascertain the roles of the Students Affairs (HEP) and Islamic Affairs (HEI) as champions for positive and moral values among the citizens of campuses and faculties.
- Ascertain the roles of the treasury to champion initiatives for new financial resources generation to finance Education 5.0@UiTM
- Appoint champion to lead waqf system

Info and infrastructure
- Reform library into learning spaces and excellence center, more flexible and open which is equipped with the updated technology

Administration and the university
- Identify champions among discipline-related industries nearby campuses and faculties
- Appoint industry idols
- Appoint champions among alumni who can contribute towards Education 5.0@UiTM
COMMUNICATION

**Educators**
- Trainings for UiTM academics to enhance T&L skills.
- Review of the content of Basic Teaching Course (KAP) module to include pedagogical skills of Education 5.0@UiTM
- Sharing sessions among lecturers

**Students**
- Trainings for UiTM students to enhance learning skills.
- Sufficient space for expression of opinions from students to realize the needs of the younger generation
- Rectification of the students’ mindset during orientation week
- Sharing sessions with idols or influential figures
- Expansion of outbound and inbound activities to enable students to think and act intellectually

**Non-academics**
- Trainings for UiTM academics, non-academic staff and students to enhance skills.
- Periodic training in technology skills
- Comprehensive understanding on the importance and necessity of Education 5.0@UiTM at all levels
- Dissemination of information suitably covers all levels’ of acceptance and understanding

**Info and infra**
- Rapid deployment of high-speed communications network
- Smart devices mediated communication such as skypes, email, bulletin/LED boards, computer conferencing
- Social media tools to explore, discover and exchange information quickly, creatively, and independently

**Administration and the university**
- Awareness on current T&L technological approaches and its deployment among university community
- Extensive campaigns on encouraging changes toward Education 5.0@UiTM
- Wide-ranging platform for feedback on Education 5.0@UiTM
- Bridged communication among all UiTM citizens
- Platform for effective feedback for the review of the mentioned
- Comprehensive understanding on the importance and necessity of Education 5.0@UiTM among all internal stakeholders; ownership of and engagement in Education 5.0@UiTM among heads of departments and units to implement and support this new education system.
- Utilization of all existing communication channels to campaign for practice of positive values
T&L innovation partnerships: inter-university arrangements for pursuing collaborative T&L innovation

A buddy program with two-pronged objectives: the seniors to guide the juniors and the juniors to share the latest technology in T&L with the seniors.

Collaboration with external organization for sponsorship of T&L facilities at campuses and faculties.

Mobilization of international crowd funding through online system

Review of job scope to include Education 5.0@UiTM

Flexible job scope to enable contribution for development of Education 5.0@UiTM

Local-international linked programs. University-industry collaboration

Cross faculty/department/unit collaborative initiatives

Financial collaboration with financially resourceful organizations (such as corporates, foundations and zakat centres) to assist disadvantage students to buy the latest technology gadgets for T&L.

Increase of alumni involvement in T&L process through sharing of expertise and financial assistance

Education Hub for Students with special needs be developed and the lecturers be trained for this purpose

Introduction of new UiTM Corporate Culture; not only ideal as official document but also be appreciated for practice

Strengthening of the alumni management unit in terms of finance and staff

Readiness to accept and consider opinions and views with regard to the review of the mentioned by the university executive body

Collaboration through open-sourced tools. Technology deployment to local-global cooperation and collaboration

Provision of space with free rental initiative for corporate organizations to operate in campus

Sponsorship of space (building) and facilities from external organization and alumni

Development of social business entity to generate revenue to fund purchase of high-tech equipment and facilities for T&L

Provision of space with free rental initiative for corporate organizations to operate in campus
CREDIT & COMPENSATION

Educators
• Awards, acknowledgment, Rewards for innovative academics; Innovative T&L incentives and grant awards,
• Merit for job promotions
• International attachment – special offer/invitation for sabbatical leave, research fellowship, invited lecturers at top 100 world ranking universities/top-notch industries
• Use of the latest technology be included as a criterion in PROPENS and given a high weightage.

Students
• Advanced credit systems for MOOC completions
• Awards for students, opportunities for summer sessions overseas
• Loans of learning devices to marginalized students
• Grant, scholarship and award for students who run projects/initiative for Education 5.0@UiTM

Administration
the university
• Acknowledgment and appreciation to the industries and public that actively engage in Education 5.0@UiTM
• Implementation and practice of Education 5.0 to be a criterion in annual appraisal (LNPT)
• Special grant allocation (awards) to faculties and branches for their exceptional initiatives or effort implementing Education 5.0 among university staff and students
• Best Info and Infra Award towards Education 5.0@UiTM to be nominated annually which involves all faculties and branches in UiTM
Understanding and practice of excellent corporate culture among UiTM citizens.

Acculturation of Malay and Islamic ethics (adab) among UiTM citizens.

Academics and non-academics

- Understanding and practice of excellent corporate culture among UiTM citizens.
- Acculturation of Malay and Islamic ethics (adab) among UiTM citizens.

Students

- Three Lens Approach for student engagement
- Future of learning as dynamic – the idea of active lifelong learning and experiential learning
- Creating a seamless flexible learning environment throughout the campus: Classes to the fields and to the Residential colleges
- Instilling Adab in all realms of campus life

Administration and the university

- High integrity, Positive thinking, Passionate, Disciplined, Confident, Competitive, Efficient, Effective, diligent
- Partner with industry and local society across all aspects of the education value chain, from curricula and faculty/campus to infrastructure, research, study experience and placements
- Integrate life skills across the curriculum through integration with real world stakeholders such as industry, society and entrepreneur networks
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Associate committee for the establishment of the Centre for Innovative Delivery and Learning Development
Selected young lecturers, selected degree and postgraduate students
Definition of 5Ms

MURABBI
An educator who attempts to impart “holistic development” of learners in accordance with Islamic educational philosophy. The holistic development covers the development of all aspects of the human being i.e., physical, intellectual, social, moral and spiritual.

MUDARRIS
An educator who encourages students to read, repeat and remember information and also seeks to impart basic knowledge to the minds and hearts of students usually by direct instruction.

MU’ALLIM
An educator who has mastered the techniques of instruction such that students study a range of subjects in a variety of ways. One who is able to organise information and learning activities using a variety of instructional strategies, either teacher-centered or learner-centered. Also, capable to stimulate and motivate through effective pedagogy and attractive learning environments.

MU’ADDIB
An educator who seeks to train students in terms of akhlāq (good behaviour) and adab (good manners) by means of setting a good example as well as by disciplining them through the use of positive and negative reinforcement. Thus, allowing students to internalize values and apply them in good behaviour.

MURSHID
An educator who guides their followers (murīds) on a spiritual journey known as tariqa (the path) through suluk (spiritual wayfaring). One who does not only embodies good behaviour, but transforms his devotee by means of ‘spiritual transmission’ and purification of the heart.

Source:
Appendix B: Organizational Learning Model of Education 5.0@UiTM

Organizational Learning

- Institutionalizing
- Integrating
- Intuiting & Interpreting

Leadership

Internal Context
- Strategy
- Structure
- Culture
- Resources

External Context
- Competition
- Customer demands
- Technology development
- Strategic partners
- Regulatory environments
