Technische Universität München (TUM)

Mahesh Hariharan

Assistant Faculty Head

(Railway Engineering), TUM Asia

TUM Asia

Mr. Mahesh Hariharan

Assistant Faculty Head in Railway Engineering

(Rail and Urban Transport)

TUM Asia

Singapore

Campus Locations

Munich

Garching

Straubing

Weihenstephan

Singapore

Heilbronn

TUM
in Singapore

TUM in Singapore

Situated in close proximity to top local universities such as National University of Singapore (NUS) and Singapore Institute of Technology (SIT), the overseas campus of TUM based in Singapore boast close partnerships in both education and research activities with top local universities, research institutions and multinational companies such as National Research Foundation, BASF, GlobalFoundries and Evonik.

Singapore: The Gateway to Global Success

Singapore remains one of Asia's economic powerhouses, boasting a diversified portfolio of thriving industries from aerospace, energy and chemicals to logistics and supply chains.

A rich portfolio of enabling industries

> 130	more than 130 aerospace players and 30 aerospace firms in Singapore
ASIA'S #1	ranked Asia's Top Logistics Hub
31.6%	of Singapore's total manufacturing output accounted by the electronics sector
> 100	global chemical firms operating in Singapore
S$ 309 million	of funding support for innovative research projects in sustainable urban food production, etc.

Our Programmes

Our programmes are conferred by TUM and taught in person by TUM professors from Germany. Taught only at the Singapore campus of TUM, they are competitively designed to equip students with the twin perspectives from Europe and Asia and academic knowledge to move ahead of the global landscape.

Master of Science Programmes

MSc in Aerospace Engineering

Specialises in aeronautical design, space design and researches in the aerospace engineering

MSc in Rail, and Urban Transport

Specialises in Railway Engineering, or Transport.

MSc in Logistics Engineering and Management

Integrates supply chain management, logistics, engineering, and management to provide cross-functional skills.

MSc in Sustainable Food

Specialises in food safety, Food science and food technology.

Our Programmes

Our programmes are conferred by TUM and taught in person by TUM professors from Germany. Taught only at the Singapore campus of TUM, they are competitively designed to equip students with the twin perspectives from Europe and Asia and academic knowledge to move ahead of the global landscape.

Master of Science Programmes

MSc in Industrial Chemistry

Equips specialist engineers for the pharmaceutical, as well as the fine and specialty chemical industries.

MSc in Integrated Circuit Design

Specialises in Analog IC design, Digital IC design flow; design methodology; semiconductor process technology and devices.

MSc in Green Electronics

Specialises in research areas of novel electronic/optoelectronic devices and systems, focusing on the energy, sensing, monitoring and manufacturing fields.

At TUM Asia, we are committed to fostering academic excellence by supporting students in their pursuit of knowledge to unlock potential and empowering them to make enduring contributions for the future.

Our Scholarships

1 Academic Distinction Scholarship*

Awarded to high-calibre candidates enrolled in any of TUM Asia's master's programmes who have demonstrated outstanding academic achievements

2 ASEAN Scholarship*

Awarded to exemplary candidates from ASEAN countries enrolled in any of TUM Asia's master's programmes who have exhibited outstanding leadership qualities, character and exceptional academic performance

3 Women in STEM Scholarship*

Awarded to exceptional female candidates enrolled in any of TUM Asia's master's programmes who have demonstrated strong leadership qualities and potential in personal endeavours

4 TUM Asia-DAAD Scholarship

Funded by German Academic Exchange Service (DAAD) and awarded on a per-semester basis to TUM Asia's students who have achieved academic excellence and demonstrated strong aptitude.

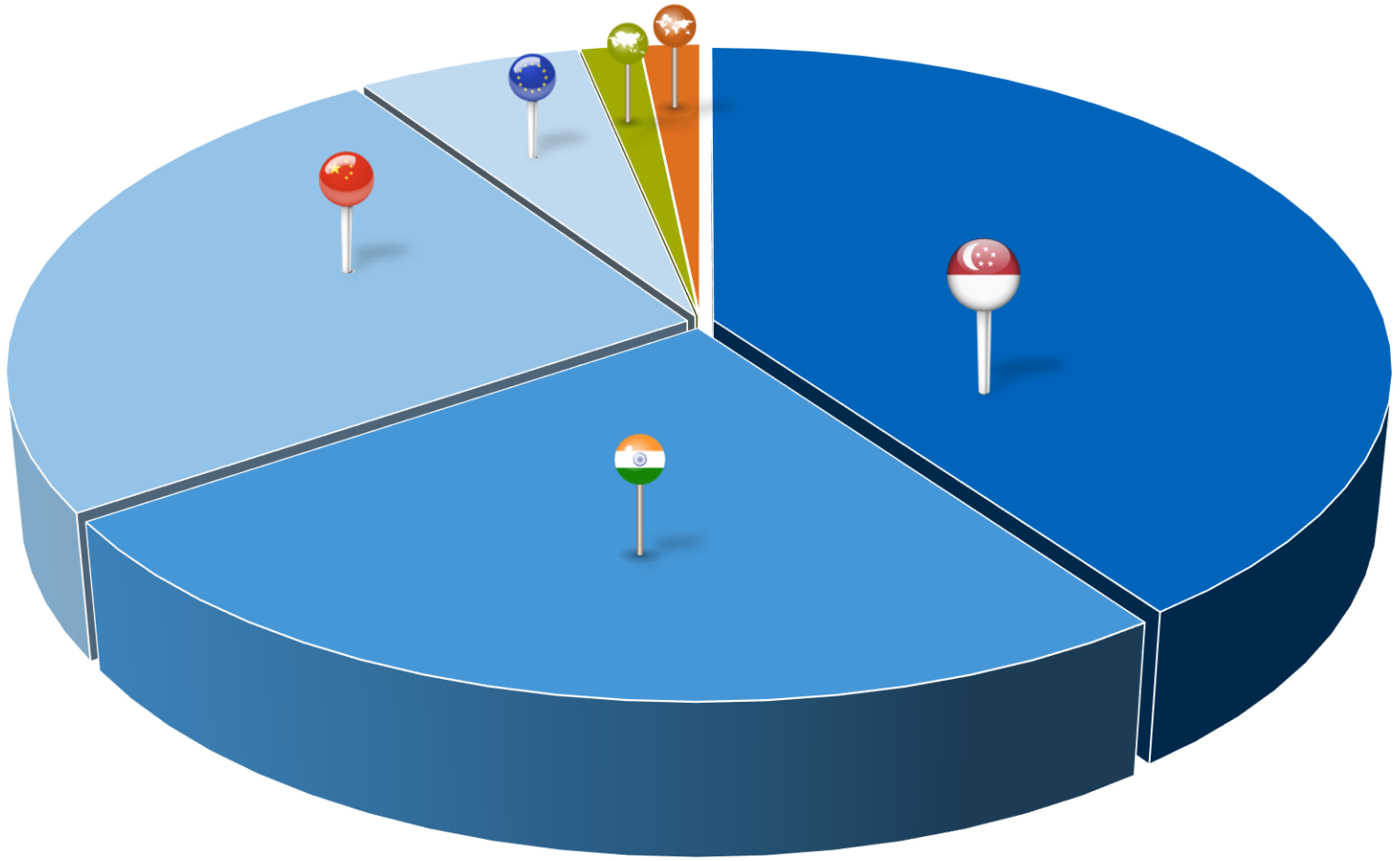
5 TUM Asia-DAAD MSc Scholarships

Funded by German Academic Exchange Service (DAAD), the scholarships is awarded to top-notch graduates from ASEAN (including Timor-Leste) and enrolled in TUM Asia's selected Master of Science (MSc) programmes

6 EDB-IPP Scholarships *(MSc ICD - SG/SPR)*

The Industrial Postgraduate Programme, developed by Singapore's Economic Development Board (EDB), aims to provide postgraduate students with industry relevant training in preparation for Research & Development (R&D) roles in industry, and concurrently help companies to attract talent to fill their R&D roles.

**Terms & Conditions apply. All scholarships are limited and subject to availability.*



SINGAPORE	INDIA	CHINA	EUROPE	REST OF THE WORLD	REST OF ASIA
42%	24%	24%	8%	1%	1%

~3,200

Close to 3,000 students coming from more than 35 nationalities

>902

Number of students studying at TUM Asia (bachelor's and master's students; and working professionals)

Our **Students**

TUM Asia

Introduction into

Master of Science in

Rail and Urban Transport (RUT)

and

Master of Science in

Logistics Engineering and Management (LEM)

March 2025

Overview

MSc in
Rail, and Urban Transport

Specialises in Railway Engineering, or Transport.

MSc in
Logistics Engineering and Management

Integrates supply chain management, logistics, engineering, and management to provide cross-functional skills.

Summary:

- **TUM Master Degree**
- **Duration: 2 years full-time**
- **120 ECTS**
- **11 months of course work + Internship (min. 3 months) + Master Thesis (6 months)**
- **Study Place: TUM Asia Singapore**

Programme Structure

MSc. Logistics Engineering and Management

SEMESTER 1 & 2

Core Modules

- Introduction to Business Logistics
- Introduction to Supply Chain Management
- Industrial logistics
- Planning of Intralogistics Systems
- Consumer Industry Supply Chain Management
- Logistics Service Provider (LSP) Management
- Health Care Logistics
- Decision Support for Transport and Logistic Processes
- Traffic Impacts, Evaluation of Transport and Logistic Processes
- Statistical Methods for Transport and Logistic Processes
- Soft Skills

Technical Elective Modules (Choose 3)

- Green Supply Chain & Risk Management
- Design and Application of Material Handling Systems
- Airport and Harbour Design
- Transport and Urban Planning

Non-Technical Elective Modules (Choose 1)

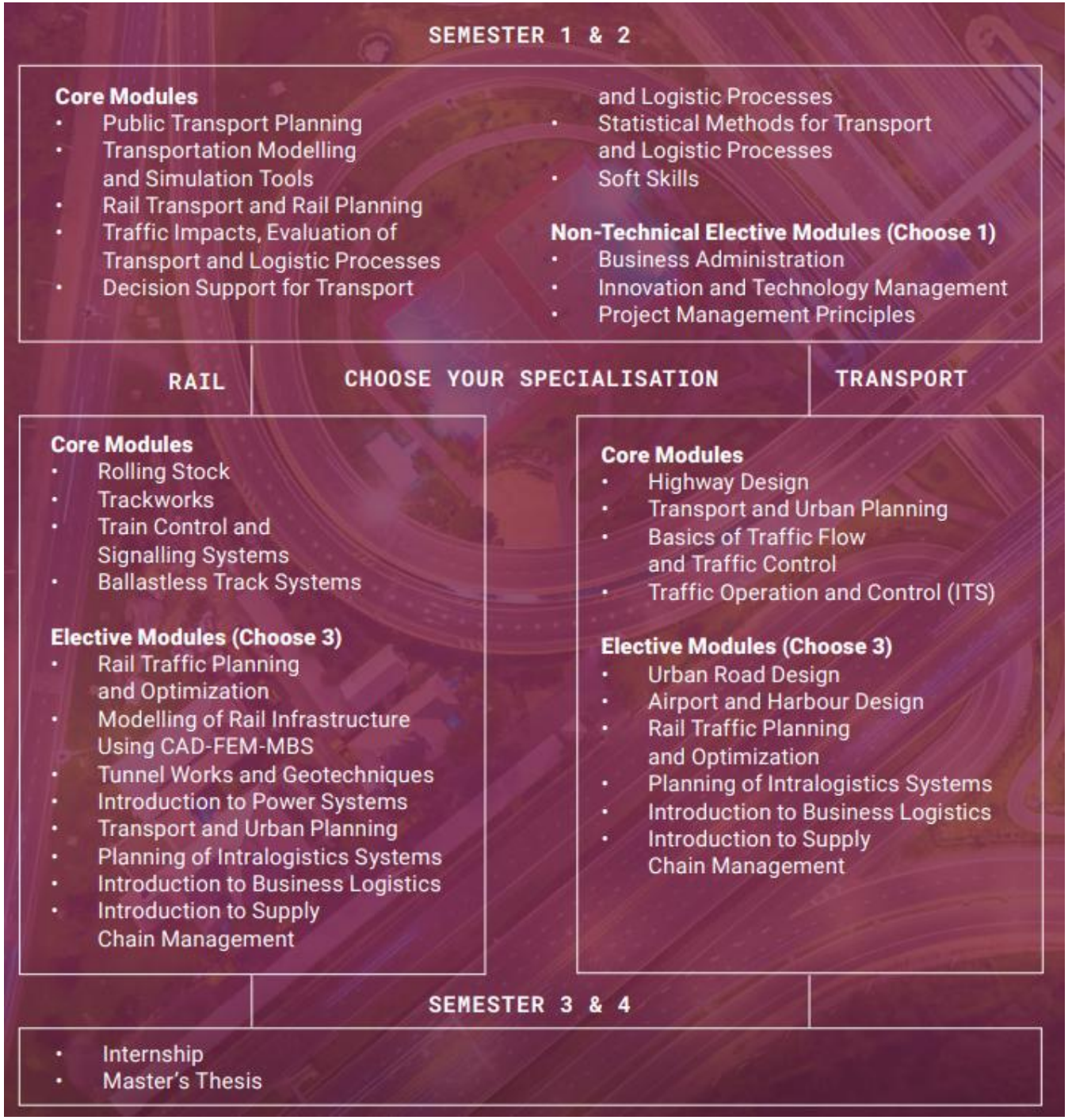
- Business Administration
- Innovation and Technology Management
- Project Management Principles

SEMESTER 3 & 4

- Internship
- Master's Thesis

Programme Structure

MSc. Rail and Urban Transport



Internship & Master’s Thesis

Internship:

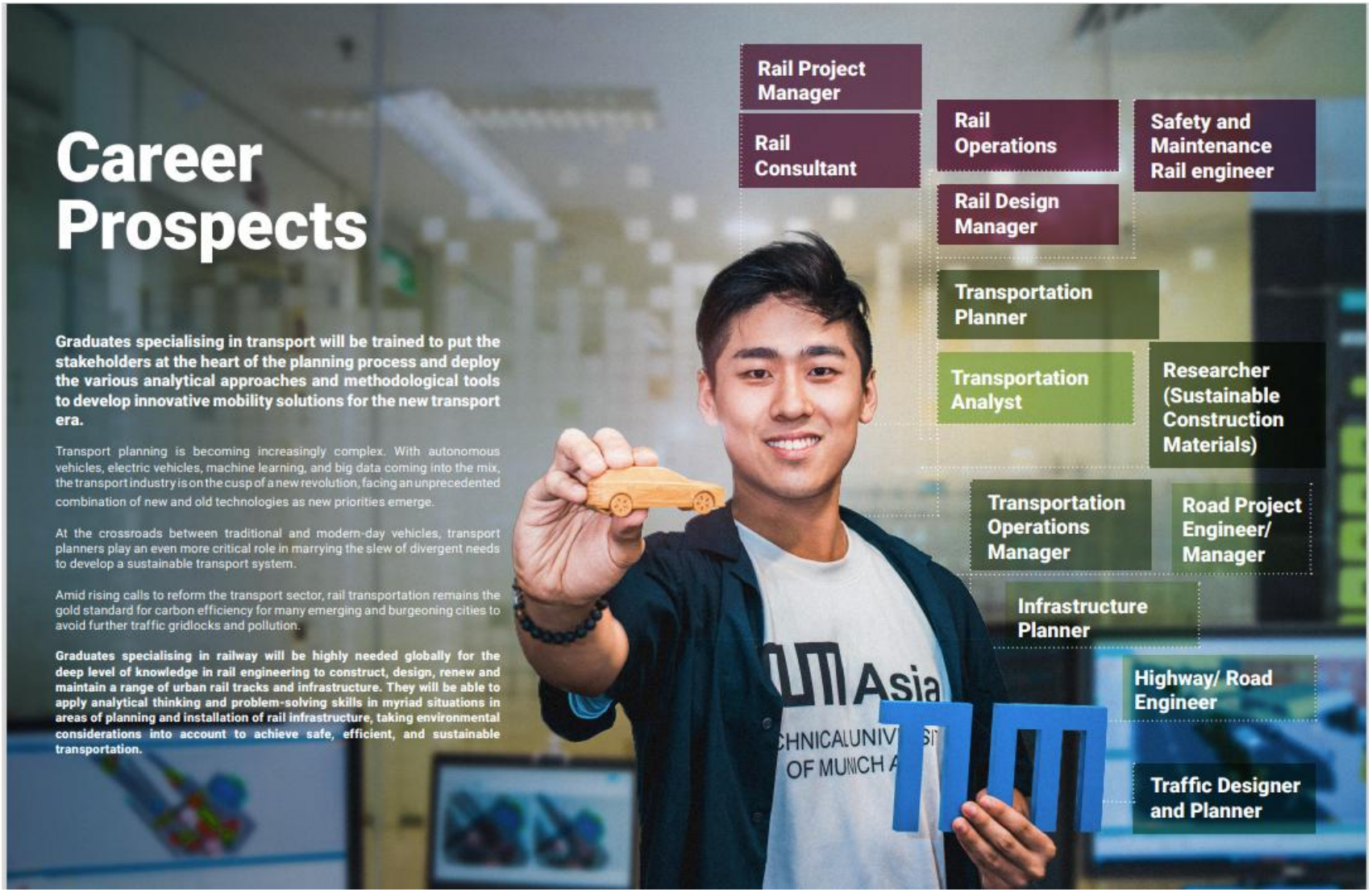
- Students must complete a three-month internship with the industry or an academic institution of choice related to his or her field of study.
- Students are empowered and given the freedom to pursue internship in their desired fields anywhere in the world.

Master’s Thesis:

- Students must complete a six-month master’s thesis at the end of the study.
- The master’s thesis can be done in collaboration with industry partners or research institution.
- The master’s thesis can be done anywhere in the world.
- A combination of internship and master’s thesis is possible (9 months duration).

Master of Science in

Rail and Urban Transport



Master of Science in

Logistics Engineering and Management

Master of Science in

Rail and Urban Transport

ADMISSION CRITERIA

- Bachelor's degree in Civil/Communications/Electrical/Environmental/ Mechanical/ Transportation Engineering, Geodetics, Geography, Computer Science, Economics, Mathematics, Physical Sciences, Architecture or a closely related discipline
- Bachelor's degree certificate or enrolment letter / Academic transcripts or mark sheets, including the credits/grading system of your university
- State of purpose indicating the reason(s) you are interest in this programme
- Curriculum Vitae / Résumé
- Test of English as a Foreign Language (TOEFL) test score (≥ 88 for Internet-based test or International English Language Testing System (IELTS) test score (≥ 6.5 overall)
- Akademische Prüfstelle (APS) certificate for applicants who hold a degree from China, India and Vietnam

Master of Science in

Logistics Engineering and Management

ADMISSION CRITERIA

- Bachelor's degree in Logistics, Supply Chain Management, Business Administration, Civil Engineering, Transportation Engineering, Electrical Engineering, Geodetics, Mechanical Engineering, Geography, Computer Science, Communications Engineering, Economics, Mathematics, Physical Sciences, Architecture, Environmental Engineering, Tourisms or a closely related discipline
- Bachelor's degree certificate or enrolment letter / Academic transcripts or mark sheets, including the credits/grading system of your university
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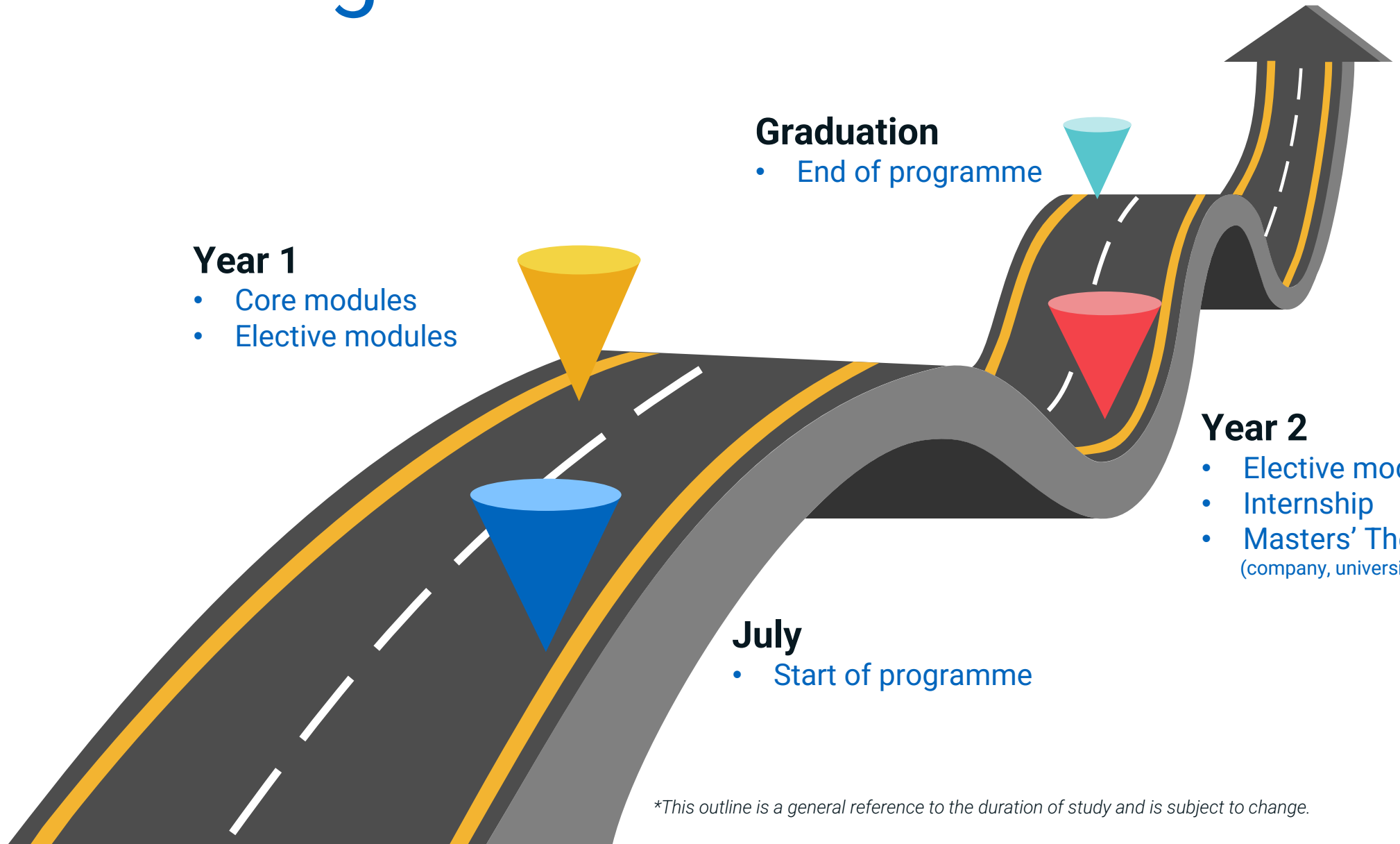
MSc Programme Timeline



Graduation
- End of programme

Year 1
- Core modules
- Elective modules

Year 2
- Elective modules
- Internship
- Masters' Thesis
  (company, university or research institute)

July
- Start of programme

**This outline is a general reference to the duration of study and is subject to change.*

Meet the Team

Speak to our expert team of faculty or admissions advisors, via Zoom where you can discover more about our courses and where will this take you to your next learning milestone.

Ms Lenny Christina

Admissions Advisor

India and ASEAN region

TUM Asia

Ms Pan Yu

Admissions Advisor

Greater China

TUM Asia


TUM Asia
Q & A
tum-asia.edu.sg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Thank you.
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