INSTITUTO MAUÁ DE TECNOLOGIA

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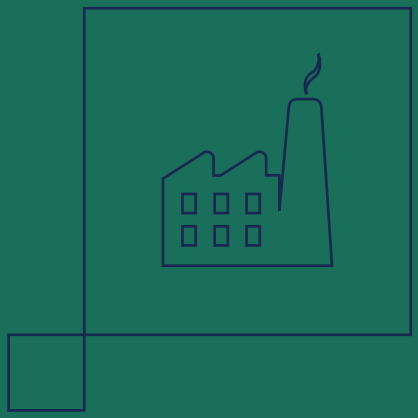
PRODUCTION ENGINEERING SÃO CAETANO DO SUL

PRODUCTION



WHAT DOES A PRODUCTION ENGINEER DO?

Based on a sustainable and competitive approach, Production engineers design, implement, manage and promote the constant improvement of production systems, goods and services and their distribution networks, which consist of infrastructure, processes and people. Production engineers are responsible for calculating production variables with a view to achieving the best cost/benefit ratio for their employer organizations.

WHERE CAN PRODUCTION ENGINEERS WORK?

The Brazilian Association of Production Engineering (www.abepro.org.br) lists ten areas of knowledge that production engineers need to be competent in, which slightly underscores the breadth and flexibility of their education: Operation and Production Process Engineering; Logistics; Operational Research; Quality Engineering; Product Engineering; Organizational Engineering; Economic Engineering; Workplace Engineering; Sustainability and Education Engineering.

Therefore, one of the major strengths of production engineers is as systemic understanding of any productive process, which allows them work or start an entrepreneurial career across any industry, from manufacturing to financial markets and consulting services.

THE JOB MARKET

The job market for Production engineers is undergoing major changes due the increased use of new technologies, which will result in new work patterns in the years ahead. With the introduction of new roles and challenges, including those related to Industry 4.0, Production engineers will have to adapt quickly to this new scenario, which should demand new skills and capabilities.

Due to their broad-based, systemic education, that encompasses technical and aspects of the production process management, these engineers can find employment in a wide range of industries, including the banking sector.

PRODUCTION

PROGRAM LENGTH:
DAYTIME CLASSES: 5 YEARS.
EVENING CLASSES: 5 AND 6 YEARS
*** TOTAL CLASSROOM HOURS IS THE SAME FOR BOTH PERIODS**

LOCATION:
SÃO CAETANO DO SUL CAMPUS

THE PRODUCTION ENGINEERING PROGRAM AT IMT

One of the foundations of the Production Engineering Program at IMT is a project known as Fábrica Virtual (Virtual Factory), which employs state-of-the-art software to develop product (3rd year) and factory (4th year) projects, supported by Project Based Learning (PBL).

The program also has a constant focus on productive system management. In their third year of studies, students are presented with traditional management tools and in the fourth year the focus changes to the management of productive systems per se. In their fifth – and last – year, students explore smart tools linked to the Industry 4.0 concept.

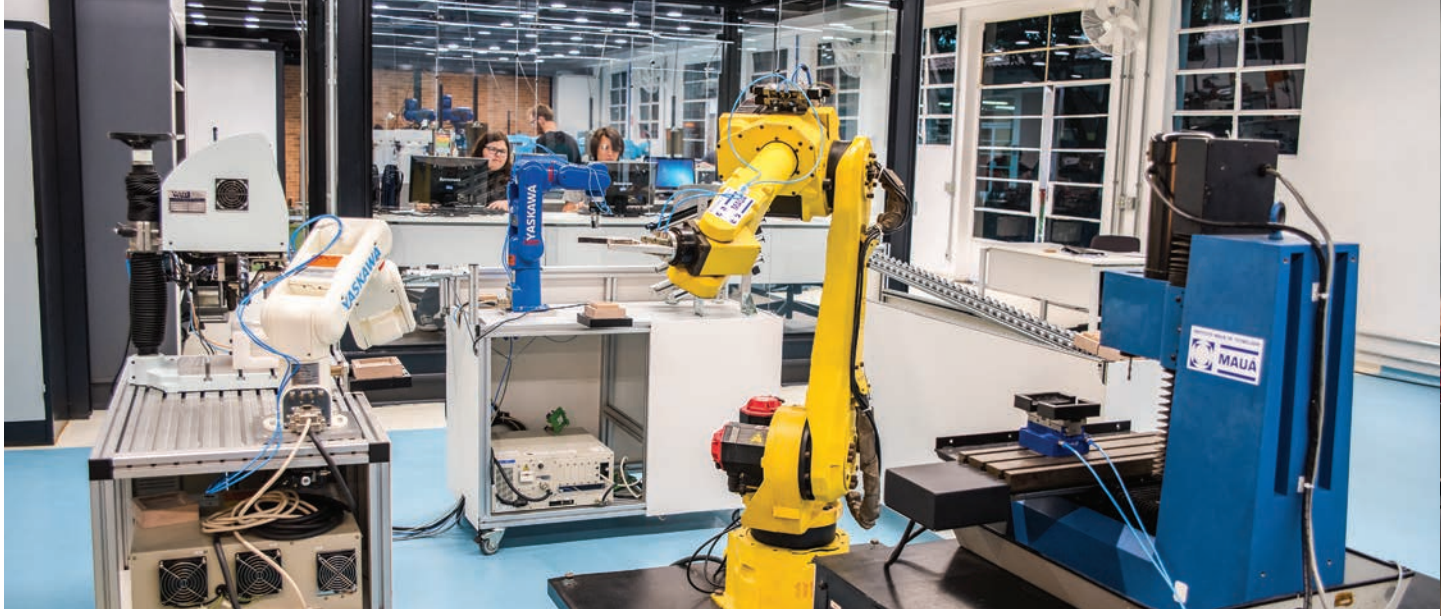
All courses also expose students to the Brazilian reality in this field. As an example, most final assignments are based on projects developed by small and medium-sized companies aimed at solving their real-life problems.

IMT UNDERGRADUATE STUDENTS OF ALL ENGINEERING PROGRAMS PURSUE THE SAME COURSE PATH DURING THEIR FIRST YEAR OF STUDY.

WHEN PROGRESSING TO THEIR SECOND YEAR, STUDENTS CAN CHOOSE THEIR MAJOR.

THE PROGRAM OFFERS:

- A solid technical education based on experimental practice, allowing students to absorb and develop new technologies;
- Development and analysis of Production Engineering projects, using computer and lab simulations and studies of real-life situations in the field;
- Undergraduate research;
- Development of critical and creative thinking aimed at problem solving;
- Systemic view;
- Integration with the Research Center, which offers opportunities for internships and jobs in companies from several industries;
- Specialized laboratories.



AWARDS AND ACCREDITATIONS

- 4 stars in Guia do Estudante.
- Score of 5 (out of 5) on the National Student Performance Test (Enade).
- International software for Virtual Factory Management.
- Partnerships with General Motors (Brazil), ThyssenKrupp and Tetra Park.
- MERCOSUR University Course Accreditation (ARCU-SUL System).

SPECIAL PROJECTS AND ACTIVITIES

In addition to conventional classes, students engage in essentially practical projects and activities in which they must work in groups composed of students enrolled in different programs and program years. There are more than a hundred projects and activities in progress, which take advantage of the excellent infrastructure available at IMT.

ACADEMIC COMPETITIONS

- Aerodesign
- Model Aircraft
- Baja Mauá
- Concreto Mauá
- Gravity Car Race
- Inova Mauá
- Eco Mauá
- Mauá Racing
- Robótica Mauá
- Mauá Júnior - Student-led non-profit trategy consulting firm
- eSports Mauá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PARTNERSHIPS

INTERNATIONAL
PARTNERSHIPS

SANDWICH YEAR

Cooperation agreement (with partial or full scholarships available) with several international Higher Education Institutions, where students attend a semester or a year in an institution abroad, earn international experience and may transfer some of their credits back to their program in Brazil.

INTERNATIONAL PARTNERSHIPS AND OPPORTUNITIES

IMT KEY FEATURES

Built on over 130,000 square meters, São Caetano do Sul campus offers some of the best-equipped higher education facilities in the country.

Over 100 laboratories – two labs per conventional classroom –, including the brand-new Fab Lab.

Comfort and safety – the campus has several cafes, snack bars and different social areas, as well as free parking for approximately 1,400 vehicles.

Several exchange programs offered in prestigious international institutions: dual degree agreements, sandwich and study abroad programs. Students can apply for scholarships, and transfer some of their credits back to IMT.

Distinguished academic staff that blends subject-matter experts with extensive industry experience, and professors holding Master's and PhDs from some of the best universities in Brazil and abroad.

A new and innovative educational approach that requires active learning experiences – from outside the classroom – for the purpose of curriculum integration: academic competition, partnerships with the business community, undergraduate research, teaching assistantships, and much more.

An academic environment that includes close cooperation with industry technology development projects involving both the faculty and student bodies.

IMT KEY FEATURES

Activities focused on developing the social and emotional skills students need to succeed in their professional careers.

Special support to help students transition to academic life: assistance available at non-classroom hours, access to vast digital content (video lessons and exercises), tutoring.

Curriculum flexibility, allowing students to choose complementary graduation projects and activities, as well as elective courses.

Minor programs, which provide students with an undergraduate specialization that is both complementary to and distinct from their main major, in areas such as Project Management, Business Management, Design and Innovation, Energy and Sustainability (programs revised on an annual basis).

A teaching philosophy focused on preparing students for innovation and entrepreneurship, developing projects that integrate Management, Design and Engineering.

Partnerships with the business community and mentoring by experienced executives to assist students with their term papers, adding a strong business focus, and connect their research to the marketplace issues and routine.

Undergraduate research opportunities offered in several IMT research groups that make significant contributions to scientific and technological advancement.


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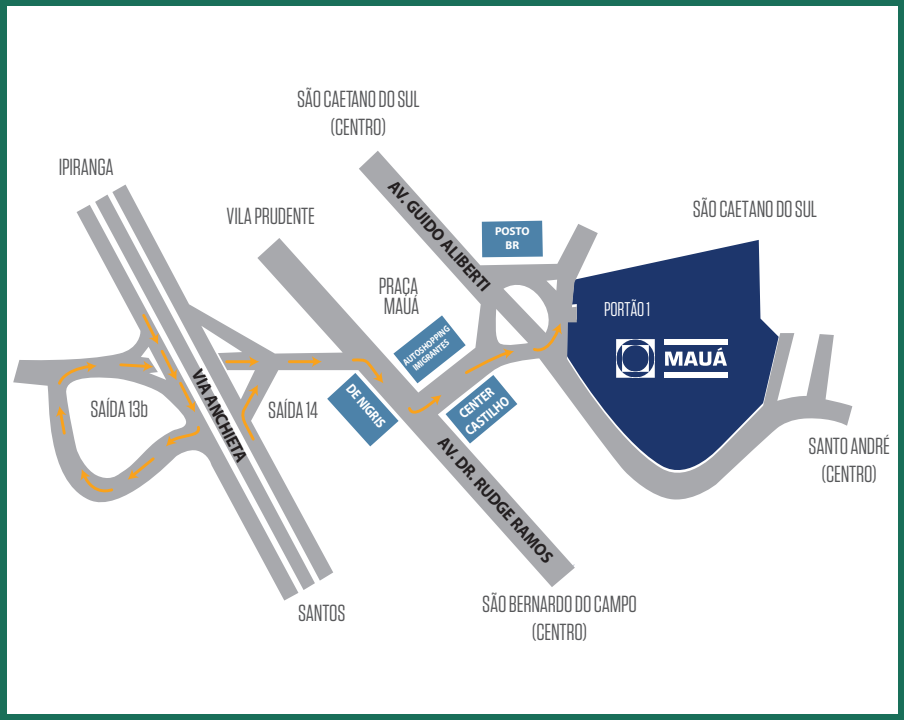
SÃO CAETANO DO SUL CAMPUS

CAMPUS DIRECTION MAPS



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