SMU

MedTech
Mediterranean
Institute of Technology

Enroll in a life **changing journey**

www.medtech.tn

Welcome

President's Message

The strategic location of Tunisia in the heart of the Mediterranean combined with the diversity of its cultural heritage constitutes major assets for the development of a regional hub of educational excellence.
It is in this framework that we have developed The South Mediterranean University (SMU). On behalf of all members of our management team, we want to make your education at SMU a life changing experience and wish you success in your drive for professional Excellence.

Mahmoud TRIKI,
Founder & President, SMU

Shape your **future** at MedTech

Our vision

MedTech aspires to be a regional hub of excellence in engineering education by fostering innovative learning and societal impact.

Our mission

MedTech is committed to train highly qualified engineers capable of contributing and leading innovative ventures in today's globalized world.

Our values

- Diversity
- Integrity
- Care
- Excellence
- Creativity

A LIFE CHANGING JOURNEY

SMU building

Our **learning strategy**

MedTech implements an adaptive learning strategy that offers students a life changing experience.

Digital

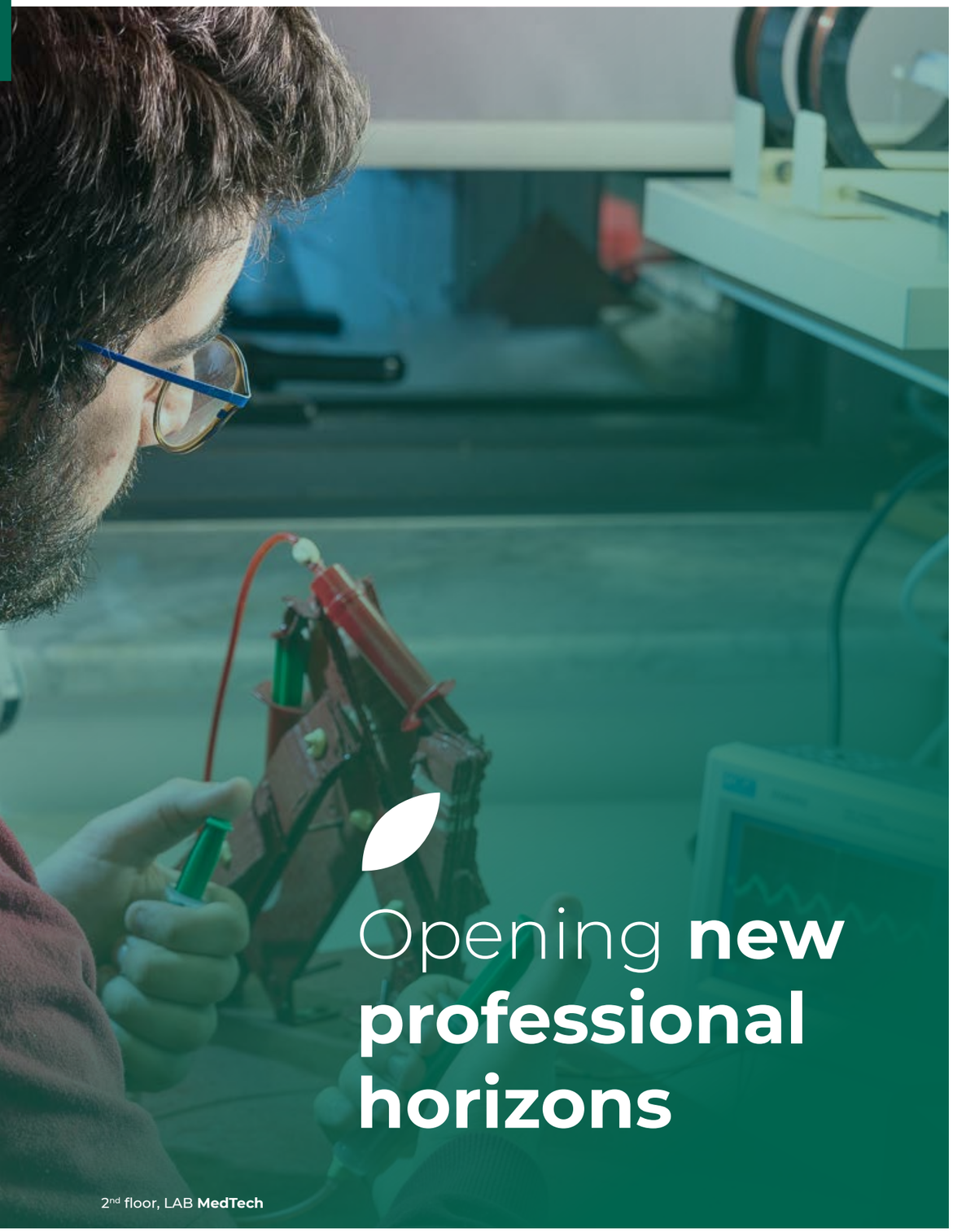
MedTech is facilitated with technology, information and instructions that are enhanced using various applications, tools and resources to improve the learning experience.

Active

Our active pedagogy allows our students to be continuously involved in the learning process through individual and group activities, bootcamps, simulation games enabling them to develop a variety of skill sets that differentiate our graduates on the job market.

Interdisciplinary

By combining our curricular objectives to different disciplines, we help our students acquire the knowledge and skills necessary for their personal and professional development.



Why **choose MedTech** ?

The Mediterranean Institute of Technology is a community driven by a shared purpose that is to develop the minds of young engineers. All nationalities and all disciplines are welcome to explore the fields of Software Engineering, Computer Systems Engineering, Renewable Energy, Artificial Intelligence and Blockchain applications.

MedTech
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Modern Teaching Methods

- To improve the student experience, Medtech provides state-of-the-art information technology suited for both blended and hybrid learning.

Highly Qualified Professors

- Experienced faculty, all holding PhDs from prestigious universities.

State of the Art Facilities & Laboratories

- Laboratories in major scientific fields (Renewable Energy, Computer Science, Electronics, Physics, Chemistry).
  A well-equipped makerspace dedicated to students to elaborate their projects.

Well-Rounded Training in Business, Management, Governance & Ethics

- Successful engineers require a diverse set of competencies that extend to communication skills, business, management, and an appreciation of the regulatory environment and the interplay between ethics and modern technologies.

Possibilities of Dual Degrees

- Opportunities to benefit from visiting professors, joint research projects and dual diploma partnership with the University of Michigan-Dearborn, USA.

MedTech
Engineering Programs

SOFTWARE ENGINEERING

RENEWABLE ENERGY ENGINEERING

COMPUTER SYSTEMS ENGINEERING

Duration	Credits	Language
5 years	**300 ECTS**	**English**

Programs **Objectives**

MedTech engineering programs are designed to train future engineers to apply scientific knowledge to problem solving.

Our **Talent**

Our students paths upon graduation

+33% are enrolled in PhD abroad

+8% are entrepreneurs

+59% joined the business world

Worldwide graduate opportunities in

UNIVERSITY OF ROSTOCK (GERMANY) • UNIVERSITY OF PORTO, TECNICO LISBOA (PORTUGAL)
• UNIVERSITY OF MICHIGAN-DEARBORN (USA)

1st and only English-Speaking Engineering School in Tunisia;

1st School Offering an Engineering Diploma in Renewable Energy;

94% Professors with PhDs from Prominent Universities;

3+2 Possibility of Dual Degree with University of Michigan-Dearborn, USA.

Format & Structure

Start Smart → Pre-Engineering (2 YEARS) → Engineering Cycle (3 YEARS) → Capstone Project (6 MONTHS) → Graduation

Programs **Breakdown - Engineering**

Pre-Engineering

Freshman Year

- Calculus I
- Calculus II
- Discrete Mathematics
- General Chemistry
- Classical Mechanics
- Introduction to Programming
- Computer Organization & Design
- Digital Systems
- Academic English
- English Composition
- Introduction to Microeconomics
- Freshman Project

Sophomore Year

- Linear Algebra
- Probability and Statistics
- Differential Equation
- Electromagnetism
- Waves Optics & Quantum Physics
- Object-Oriented Programming
- Data Structure & Algorithms
- Electrical Circuits
- Technical Writing
- Introduction to Psychology
- Introduction to Macroeconomics
- Sophomore Project

Engineering Cycle

Computer Systems Engineering

Junior Year

Electronic Devices & Circuits
Operating Systems
Startup Engineering
Signals & Systems
Introduction to Software Engineering
Introduction to Management
Engineering Seminar
Graph Theory & Applications
Database Management Systems
Communication Systems
Multivariable Calculus & Numerical Methods
Governance & Citizenship
Junior Project

Senior Year

Digital Signal Processing
Computer Networks
Programming Language Design & Implementation
Advanced Digital Systems
Effective Technical Communication
Introduction to Finance
Engineering Seminar
Distributed Systems
Senior Project
Microprocessor, Embedded & Real-time Systems
Fault-Tolerant Computer Systems
Feedback Control Systems
Engineering Ethics & Professional Practice
Engineering Internship

Final Year

Cyber Security Assessment & Management
Data Analytics
Artificial Intelligence
Robotics Engineering
Pervasive Computing & Cloud
Research Methods
Engineering Seminar
Capstone Project

Programs **Breakdown - Engineering**

Software Engineering

Junior Year

Advanced Programming
Operating Systems
Global Software Development
Startup Engineering
Introduction to Software Engineering
Introduction to Management
Engineering Seminar
Graph Theory & Applications
Database Management Systems
Web & Mobile Software Development
Requirements & User Experience
Governance & Citizenship
Junior Project

Senior Year

Algorithms & Complexity
Computer Networks
Programming Language Design & Implementation
Software Analysis & Design
Effective Technical Communication
Introduction to Finance
Engineering Seminar
Distributed Systems
Senior Project
Model Driven Engineering
Software Architecture
Software Development Methodologies
Engineering Ethics & Professional Practice
Engineering Internship

Final Year

Cyber Security Assessment & Management
Data Analytics
Artificial Intelligence
Software Quality & Testing
Pervasive Computing & Cloud
Research Methods
Engineering Seminar
Capstone Project

Renewable Energy Engineering

Junior Year

Thermodynamics
Electrical Power Systems
Organic Chemistry
Signals & Systems
Startup Engineering
Introduction to Management
Engineering Seminar
Intermediate Heat Transfer
Electromechanical Conversion Systems
Graph Theory & Applications
Multivariable Calculus & Numerical Methods
Governance & Citizenship
Junior Project

Senior Year

Materials for Renewable Energy
Biomass & Bioenergy Systems
Power Electronics
Fluid Mechanics
Effective Technical Communication
Introduction to Finance
Engineering Seminar
Energy Management & Analysis
Solar Energy Systems
Wind Energy
Feedback Control Systems
Engineering Ethics & Professional Practice
Senior Project
Engineering Internship

Final Year

Energy, Environment & Sustainability
Power Systems & Smart Grid
Energy Conversion & Storage
Artificial Intelligence
Data Analytics
Research Methods
Engineering Seminar
Capstone Project

MedTech

Licence in Computer Science

Duration
3 years

Credits
180 ECTS

Language
English

Program **Objectives**

The main objective of the Licence degree in Computer Science is to train future graduates to be successfully employed in the computing profession, or to enroll in advanced degrees in computing or any related discipline.

MedTech's Computer Science Licence program provides students with a combination of advanced technical and theoretical knowledge, best engineering practices, and emerging technologies to develop software that meets high quality standards.
The education program has a thorough basis in the principles and practices of computing as well as real-world learning experiences through team-centered and hands-on projects to prepare them properly to engage in further learning.

Besides technical skills, upon successful completion of the program, graduates will acquire social and entrepreneurial skills.

Enroll in
an enriching
experience

Program **Breakdown - Licence**

Licence in Computer Science

Year 1

Term 1

- Calculus I
- Introduction to Programming
- Operating Systems
- Digital Systems
- Computer Organization & Design
- English

Term 2

- Calculus II
- Discrete Mathematics
- Data Structures & Algorithms
- Computer Networks
- Database Management Systems
- Freshman Project (Agile)

Year 2

Term 3

- OO Programming
- Software Analysis & Design
- Probability & Statistics
- Graph Theory
- Effective Technical Communication
- Introduction to Management

Term 4

- Programming Language Design & Implementation
- Software Quality & Testing
- Artificial Intelligence
- Web & Mobile Programming
- Ethics & Professional Ethics
- Sophomore Project (ERP Systems)

Year 3

Term 5

- Pervasive Computing & Cloud
- Distributed Systems
- Machine Learning
- Cyber Security
- Software Architecture
- Startup Engineering

Term 6

- Capstone Project

Certification

MedTech
Master Programs

BLOCKCHAIN & AI

SOFTWARE ENGINEERING

ENERGY MANAGMENENT & SUSTAINABILITY

CYBER SECURITY

Duration
2 years

Credits
120 ECTS

Language
English

Programs **Objectives**

The Master programs at MedTech provide advanced knowledge and methodological competences over a broad range of fields and techniques in the four different areas of specialization. The master programs focus on competences for effectively managing people, projects and processes as well as developing technical skills necessary for each specialization.

Programs **Breakdown - Master**

Blockchain & AI

Year 1

- Artificial Intelligence
- Advanced Statistics & Data Analytics
- Database Management Systems
- Digital Marketing
- Effective Technical Communication
- Digital Transfromation & Industry 4.0
- Algorithms & Graphs
- Distributed Systems
- Pervasive Computing & Cloud
- Business Process Modeling
- Engineering Ethics & Professional Practice
- Digital Banking & Fintech

Year 2

- Machine Learning
- Distributed Ledger Technology, Blockchain & Smart Contracts
- Financial Markets Systems & Technology
- Cyber Security Assessment & Management
- Managing Innovation & Entrepreneurship
- Business Environment
- Master Thesis

Program **Breakdown - Master**

Energy Managmenent & Sustainability

Year 1

- Energy Conversion & Storage
- Biomass & BioEnergy Systems
- Wind Energy
- Solar Energy systems
- Engineering Ethics & Professional Practice
- Energy Management & Analysis
- HVAC in Buildings
- Environmental Building Design
- Sustainable Materials
- Project Management

Year 2

- Energy, Environment & Sustainability
- Power Systems & Smart Grids
- Sustainable Mobility
- Sustainable Urban Development
- Research Methods

Certification

Software Engineering

Year 1

- Software Analysis & Design
- Database Management Systems
- Software Quality & Testing
- Advanced Programming
- Startup Engineering
- Artificial Intelligence

Year 2

- Requirements & User Experience
- Software Architecture
- Software Development Methodologies
- Web & MobileSoftware Development
- Engineering Ethics & Professional Practice

Certification

Cyber Security

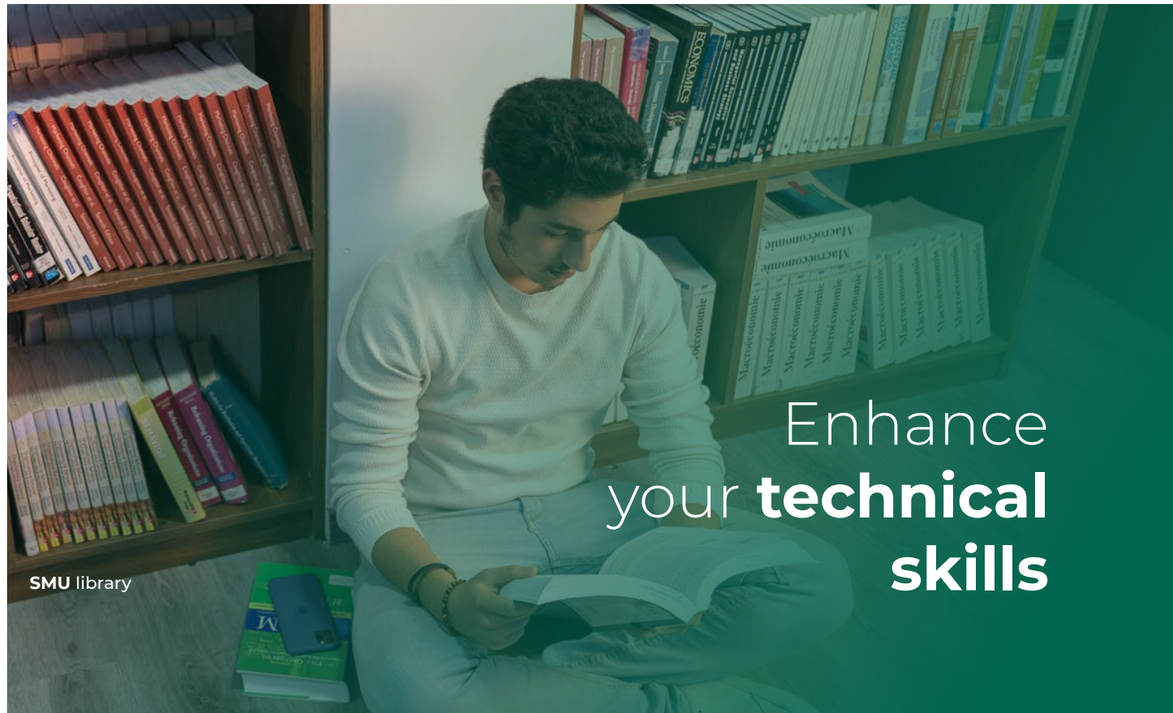
Year 1

- Cryptography
- Cyber Security Assessment & Management
- Design & Development of Secure Software
- Informatics Security & Law
- Effective Technical Communication
- Data Analytics
- Designing & Building Secure Infrastructures
- Information Technologies Security
- Security Auditing
- Security& Privacy
- Engineering Ethics & Professional Practice

Year 2

- Communication Systems Fundamentals
- High Performance Services & Infrastructures
- Robotics
- Machine Learning
- Information Systems Management
- Semantic Web
- Master Thesis

Certification



HEC MONTRÉAL
HEC Montréal
Canada

UNIVERSITY OF WATERLOO
Waterloo
Canada

DEARBORN
UMD
USA

UNIVERSIDADE D COIMBRA
Coimbra
Portugal

Bordeaux INP ENSPIMA
ENSPIMA
France

KEDGE BUSINESS SCHOOL
KEDGE
France

LUISS
LUISS
Italy

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International Opportunities

- **EXCHANGE PROGRAM :** MedTech students are given the opportunity to go on exchange in one of our partner universities such as in France and Portugal. During the exchange, they spend a semester abroad where they experience new ways of learning as well as a rich cultural exchange.
- **CAPSTONE PROGRAM :** After finishing their 5 years of Engineering, and before graduating, MedTech students can spend 6 months in one of our Capstone partners, to work on their research projects for the end of their studies, with the assistance of both MedTech professors and a professor from the partner university.
- **DOUBLE DEGREE PROGRAM :** MedTech and University of Michigan Dearborn established a “3+2 Dual Diploma Program” by which qualified students enrolled at MEDTECH, after successfully completing the first 3 years of their undergraduate curriculum, will be accepted into selected fields of study in the College of Engineering and Computer Science at UMD for the next 2 years. At the end of the five years, students earn both an Engineering Diploma from MedTech and a master’s degree from the University of Michigan-Dearborn.

SMU Career & Alumni Center

A way to build your network

In a more demanding employment market now, more than ever, the need for mentorship and guidance for you to choose your career wisely is crucial. As a career center, our aim is to bridge the gap between professional life needs and our educational system to provide our students with the right skills and knowledge so that they succeed in their professional lives.

SMU Alumni Association
MSB - MedTech - LCI

Alumni Center, 4th floor, **MSB**

SMU Incubator

SMU Incubator
MSB - MedTech - LCI

In a world where innovation is at the heart of rising economies, new business ideas have become an essential need. By founding the SMU Incubator, the university seeks to encourage young ambitious students and Alumni by helping them take the first step in creating their own companies.

Advising and Counseling Center

Our University's top priority is the health and wellbeing of its students. Owing to that fact, SMU presents the Advising and Counseling Center (ACC) that provides academic advising and individual counseling to students in need.
The ACC has been created to help students keep a healthy state of mind and help them in finding proper on-and-off-campus resources.
Students are welcome to talk with their counselor about stress, academic performance, self-esteem and uncertainty. Services are provided by a licensed counselor.

FONDATION SMU

Fondation SMU
MSB - MedTech - LCI

Promotes and supports the development of talents through academic excellence.

Fondation SMU is a Tunisian non-profit association created in 2018 by the South Mediterranean University to create and manage its Corporate Social Responsibility programs.
Its aim is to promote and support the development of Tunisian youth through the funding of student scholarships, research projects as well as employability and capacity building initiatives.

Foster Talent & Open Quality Education to all Offer

Scholarships and loans to students who have the talent and ability to succeed but concerns about funding.

Drive Research Excellence

Provide an optimal framework for research around projects that have the potential to positively impact the social and economic sectors.

Bridge Education

To the professional World Facilitate employability of young graduates by bringing them into a high-level training coupled with apprenticeship.

Develop Competencies & Skills

Deploy capacity building programs that develop competencies and skills.

For more details about our programs: **www.fondationsmu.org**

fondationsmu

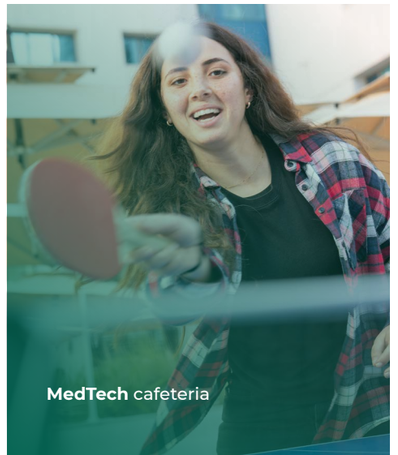
An exciting student life

SMU Student Life
MSB - MedTech - LCI

For broader horizons and for a learning experience that does not stop at the doorsteps of the classrooms, the campus features many clubs and associations that provide extracurricular and co-curricular opportunities for students, launching social projects, raising funds and donations for those in need or developing leadership skills and aiming for peace or wining competitions and bringing back trophies with SMU Sports Club. Our students are always learning, developing, and most importantly following their passions around and beyond campus.

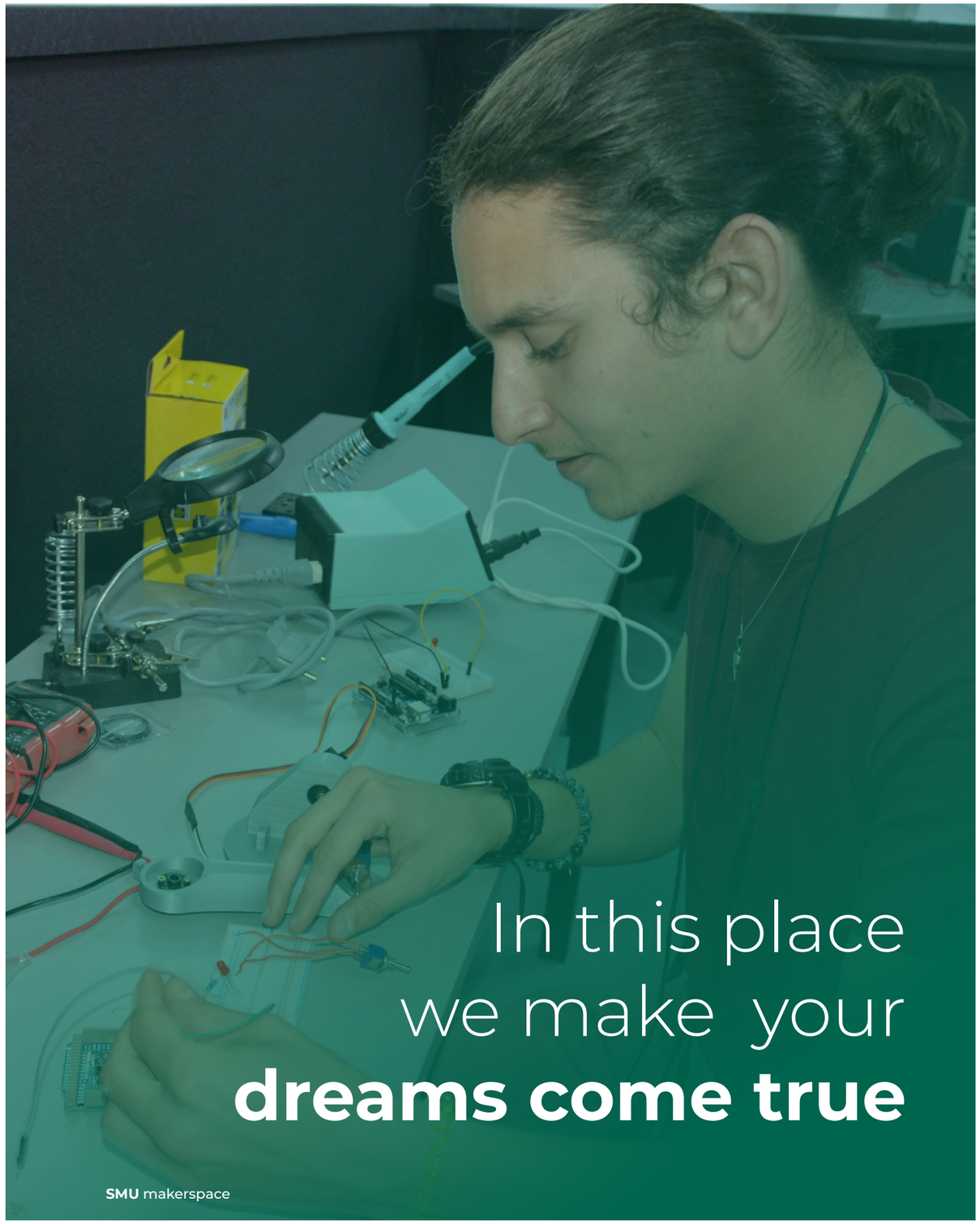
MedTech cafeteria

MedTech resting area


MedTech cafeteria

SMU Makerspace

Dedicated to creativity and innovation, SMU Makerspace is a space where students, faculty and alumni can gather to invent, create and learn with a “do it yoursel” spirit.
SMU Makerspace enables SMU Community members to explore new interests and to develop creative projects from conception to implementation.



Testimonials

RYM KRIAA
MedTech ALUMNA
MAJOR : RENEWABLE ENERGY

Being the first and only English-Speaking Engineering School offering an Engineering Diploma in Renewable Energies in Tunisia, MedTech provides you with plenty of opportunities to sharpen your skills and mind.

AHMED AZIZ OUERTATANI
MedTech ALUMNUS
MAJOR : COMPUTER SYSTEMS ENGINEERING

I belong to the first cohort of MedTech. I am extremely grateful for being provided with a unique opportunity to build a diversified and powerful network and gain technical engineering skills.

FATMA EZZAHRA BEN YEDDER
MedTech ALUMNA
MAJOR : SOFTWARE ENGINEERING

MedTech is one of my best life experiences. During my Software Engineering curriculum, I not only gathered a strong technical skills' background but also learned various soft skills including problem solving, public speaking, technical English communication and project management.

Admission **Process**

Submission of Application → Form & Documents → Admission Tests → Decision

Scholarships & Financial Aid

Scholarships: MedTech grants merit scholarships for outstanding students who cannot afford the tuition fees in order to promote academic excellence and provide greater access to quality education. They also provide diversity scholarships to further enhance the cultural and international diversity on the SMU campus.

Financial aid: SMU assists students in the process of getting grants, scholarships or student loans.

Student employment: As an SMU student, you will find many employment opportunities on campus, such as part-time librarian or internships in different SMU departments.

Admitted Students Next Steps

Housing: SMU is located in the new development Lac 2 where you will find higher-end accommodation. Cheaper options are Jardins de Carthage or El Aouina. La Marsa and Sidi Bou Said are popular options with expats as they are quite diverse and have many options for entertainment.

Bank account: Opening a bank account will probably be one of your priorities when moving to Tunisia. You will only need to provide: A copy of your certificate of registration at SMU, a copy of the first page of your passport, a copy of your Residency Card and a housing contract.

Health services: On campus, you will find a full-time nurse and a contracted doctor with whom you can have an appointment at the nursery (Mezzanine, MSB building). SMU can also help you get a health insurance.

South
Mediterranean
University

MSB . MedTech . LCI

info@smu.tn
Campus SMU : Les jardins du Lac 2, Tunis
(+216) 71 194 444
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