

Minor in Systems Engineering: Registration Form

Deadline to register: end of the first semester of the master program

STUDENT'S PERSONAL INFORMATION	
Last name:	
First name:	
SCIPER:	
E-mail address:	
Section:	Current semester:

I register for the Minor in Systems Engineering.

Date of beginning (semester/year):

Place and date:

Signature:

Please mail this form to:

- the secretariat of your section
- the secretariat of the MTE section: EPFL CDM MTE
Odyssea Building
Station 5
CH-1015 Lausanne

STUDY PLAN 2022 - 2023
INTERDISCIPLINARY MINOR in SYSTEMS ENGINEERING
Minor Advisor: prof. Th. Weber

**The minor must be done during the Master studies
and requires to obtain 30 credits**

Legend: A = Autumn, S = Spring / 1 semester = 14 weeks

Lecturers, credits and course periods are subject to change

Codes	Course	Lecturers	Course catalogue	Credits	Number of places	Semester		
CORE COURSES								
MICRO-570	Advanced machine learning	Billard	MT	4			S	<input type="checkbox"/> = Cr
MICRO-455	Applied machine learning	Billard	MT	4		A		<input type="checkbox"/> = Cr
MGT-484	Applied probability & stochastic processes	Sutter	MTE	4		A		<input type="checkbox"/> = Cr
COM-502	Dynamical system theory for engineers	Thiran P.	SC	4			S	<input type="checkbox"/> = Cr
MATH-265	Introduction to optimization and operations research	Bierlaire	GC	4		A		<input type="checkbox"/> = Cr
MGT-448	Statistical inference and machine learning (not given in 2022-23)	1) Kiyavash	MTE	4		A		<input type="checkbox"/> = Cr
MICRO-405	Systems engineering	Feusier/Gass/Bellouard/Moser	MT	3			S	<input type="checkbox"/> = Cr
DOMAIN-SPECIFIC COURSES								
Industrial engineering								
ME-516	Lifecycle performance of product systems	Friot	GM	3			S	<input type="checkbox"/> = Cr
Operations research								
MGT-528	Operations: economics & strategy	Weber	MTE	4		A		<input type="checkbox"/> = Cr
MGT-483	Optimal decision making	Kuhn	MTE	4			S	<input type="checkbox"/> = Cr
MGT-526	Supply chain management	Seifert	MTE	4	60		S	<input type="checkbox"/> = Cr
Space systems engineering								
EE-584	Spacecraft design and system engineering	Foing	EL	4		A		<input type="checkbox"/> = Cr
Energy and process systems engineering								
ME-451	Advanced energetics	Maréchal	GM	5		A		<input type="checkbox"/> = Cr
ME-454	Modelling and optimization of energy systems	Maréchal	GM	4		A		<input type="checkbox"/> = Cr
Systems biology								
BIO-463	Genomics and bioinformatics	Rougemont	SV	4			S	<input type="checkbox"/> = Cr
ChE-411	Principles and applications of systems biology	Hatzimanikatis	CGC	3		A		<input type="checkbox"/> = Cr
BIO-341	Systèmes dynamiques en biologie	Naef	SV	4		A		<input type="checkbox"/> = Cr
Network systems engineering								
MGT-416	Causal inference	Kiyavash	MTE	4			S	<input type="checkbox"/> = Cr
COM-514	Mathematical foundations of signal processing	Simeoni /Fageot	SC	6		A		<input type="checkbox"/> = Cr
COM-512	Networks out of control (not given in 2022-23)	1) Grossglauser/Thiran P.	SC	4			S	<input type="checkbox"/> = Cr
Control engineering								
ME-524	Advanced control systems	Karimi	GM	3			S	<input type="checkbox"/> = Cr
ME-523	Commande non linéaire	Müllhaupt	GM	3		A		<input type="checkbox"/> = Cr
ME-425	Model predictive control	Jones	GM	4		A		<input type="checkbox"/> = Cr
ME-421	System identification	Karimi	GM	3			S	<input type="checkbox"/> = Cr
Project								
ENG-422	Optional project in Systems engineering	Various lecturers	--	8			A or S	<input type="checkbox"/> = Cr

Remark :

1) Given every 2 years