MICRO-101: Electrotechnique II
Teacher and examiner: Prof. Dr. Cristina Benea-Chelmus
Year: Spring 2025
Class: Mondays 13:15-14:00
Exercise: Mondays 14:15-15:00
Office hours: Throughout weeks 1-9, Fridays from 11:00-13:00, BM3138
Contacts: Cristina Benea-Chelmus cristina.benea@epfl.ch & Yazan Lampert yazan.lampert@epfl.ch

With Cristina Benea-Chelmus				
Date	**Lecture**	**Location**	**Exercise**	**Location**
Week 1	Recap impedance representation in complex plane	CM 1	Exercise Recap	CM 1
February 17	Resistors, capacitances, inductances			
Week 2	Phase between voltage and current	CM 1	Exercise #1	CM 1
February 24	LC, RLC circuits		RLC and angles between U and I	
Week 3	Poly-phase systems: intro	CM 1	Exercise #2	CM 1
March 3	Three-phase systems: balanced		Balanced three-phase system	
	Line and phase voltages and currents and their relationships			
	Neutral			
Week 4	Power of a three-phase system	CM 1	Exercise #3	CM 1
March 10			Calculate complex power	
			Parallel three-junction	
Week 5	Y- and Delta- configuration of balanced three-power systems	CM 1	Exercise #4	CM 1
March 17	Converting from one to another		Minimizing reactive power	
Week 6	Unbalanced three-power systems	CM 1	Exercise #5 and #5-2	CM 1
March 24			Unbalanced three-power systems	
			Short and open circuit	
Week 7	Time dependent systems	CM 1	Exercise #6	CM 1
March 31	Step and delta function		Time-dependent RC circuit	
	RC circuit			

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Week 8 April 7	Time dependent RC and RL	CM 1	Exercise #7 Time-dependent RRC circuit	CM 1
Week 9 April 14	Final remarks	CM 1	Exam training with exam exercises from previous years	CM 1
Week - April 21	Easter week, no class		No exercise	

With Philippe Allenbach				
Date	**Lecture**	**Location**	**Exercise**	**Location**
Week 10 April 28	Lab: **Time-dependent systems**		Lab: **Three-phase systems**	
	Mondays 13:15 à 16:45	MED 22519	Fridays 12:15 à 15:45	ELD 040
	Based on student registrations		Based on student registrations	
Week 11 May 5	Lab: **Time-dependent systems**		Lab: **Three-phase systems**	
	Mondays 13:15 à 16:45	MED 22519	Fridays 12:15 à 15:45	ELD 040
	Based on student registrations		Based on student registrations	
Week 12 May 12	Lab: **Time-dependent systems**		Lab: **Three-phase systems**	
	Mondays 13:15 à 16:45	MED 22519	Fridays 12:15 à 15:45	ELD 040
	Based on student registrations		Based on student registrations	
Week 13 May 19	Lab: **Time-dependent systems**		Lab: **Three-phase systems**	
	Mondays 13:15 à 16:45	MED 22519	Fridays 12:15 à 15:45	ELD 040
	Based on student registrations		Based on student registrations	

With Cristina Benea-Chelmus and Philippe Allenbach				
Week 14 May 26	Multiple choice exam related to lab work	Room announcement will follow	Final questions from the students/exam training	CM 1