

// Master 2 sciences de la matière – orientation Physique et Chimie Computationnelle

// Calendrier annuel 2024-2025

- La réunion de rentrée aura lieu le **02/09/2023 dans Salle TP du CBP à 09:00**. Présence de tous les étudiants obligatoire.
- Un projet de stage devra être déposé aux responsables de formation avant le **15/12/2023**.
- Durée minimale du stage: 24 semaines (30 ECTS)
- Soutenances de stage à partir du 15/07/2024.

Période		Début	Fin	Période		Début	Fin
3A	Cours	02/09	18/10	3C	Winter schools + Literature project + Comput. project	06/01	24/01
	Révisions	21/10	25/10				
	Examens	28/10	1/11				
	Rattrapages	16/12	20/12				
3B	Cours	04/11	13/12		Presentations	27/01	31/01
	Examens	16/12	20/12	4	Stage	03/02	18/07
	Break	21/12	05/01		Soutenances	15/07	18/07
	Rattrapages	27/01	31/01				

	Septembre				Octobre				Novembre				Décembre				Janvier				Février				Mars					
L	2/9	9/9	16/9	23/9	30/9	7/10	14/10	21/10	28/10	4/11	11/11	18/11	25/11	2/12	9/12	16/12	23/12	30/12	6/1	13/1	20/1	27/1	3/2	10/2	17/2	24/2	3/3	10/3	17/3	24/3
M	3/9	10/9	17/9	24/9	1/10	8/10	15/10	22/10	29/10	5/11	12/11	19/11	26/11	3/12	10/12	17/12	24/12	31/12	7/1	14/1	21/1	28/1	4/2	11/2	18/2	25/2	4/3	11/3	18/3	25/3
M	4/9	11/9	18/9	25/9	2/10	9/10	16/10	23/10	30/10	6/11	13/11	20/11	27/11	4/12	11/12	18/12	25/12	1/1	8/1	15/1	22/1	29/1	5/2	12/2	19/2	26/2	5/3	12/3	19/3	26/3
J	5/9	12/9	19/9	26/9	3/10	10/10	17/10	24/10	31/10	7/11	14/11	21/11	28/11	5/12	12/12	19/12	26/12	2/1	9/1	16/1	23/1	30/1	6/2	13/2	20/2	27/2	6/3	13/3	20/3	27/3
V	6/9	13/9	20/9	27/9	4/10	11/10	18/10	25/10	1/11	8/11	15/11	22/11	29/11	6/12	13/12	20/12	27/12	3/1	10/1	17/1	24/1	31/1	7/2	14/2	21/2	28/2	7/3	14/3	21/3	28/3
S	7/9	14/9	21/9	28/9	5/10	12/10	19/10	26/10	2/11	9/11	16/11	23/11	30/11	7/12	14/12	21/12	28/12	4/1	11/1	18/1	25/1	1/2	8/2	15/2	22/2	1/3	8/3	15/3	22/3	29/3
D	8/9	15/9	22/9	29/9	6/10	13/10	20/10	27/10	3/11	10/11	17/11	24/11	1/12	8/12	15/12	22/12	29/12	5/1	12/1	19/1	26/1	2/2	9/2	16/2	23/2	2/3	9/3	16/3	23/3	30/3

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//Semestre 3A

	Lundi		Mardi		Mercredi		Jeudi		Vendredi	
	Cours	Amphi	Cours	Amphi	Cours	Amphi	Cours	Amphi	Cours	Amphi
8h - 10h	Photochemistry and -physics T. Niehaus	G + CBP					DFT M1			
10h15 - 12h15	Advanced Computational Chemistry A. Padua	G + CBP					DFT M1			
13h30 - 15h30	Computational statistical physics R. Everaers	C+ CBP	Approche quantique de la réactivité catalytique P. Raybaud	29	Computational Project: TP Scientific Software Development	CBP			Photochemistry and -physics T. Niehaus	E + CBP
15h45 - 17h45	Computational statistical physics R. Everaers	C+ CBP	Computational statistical physics R. Everaers	C	Computational Project: TP Scientific Software Development	CBP			Photochemistry and -physics T. Niehaus	E + CBP

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//Semestre 3B

	Lundi		Mardi		Mercredi		Jeudi		Vendredi	
	Cours	Amphi	Cours	Amphi	Cours	Amphi	Cours	Amphi	Cours	Amphi
8h - 10h	Advanced Computational Chemistry A. Padua	G + CBP	Computational Quantum Physics T. Roscilde & F. Mezzacapo	C	Computational Quantum Physics T. Roscilde & F. Mezzacapo	F	DFT M1		Computational Fluid Dynamics E. Levêque, G. Laibe & A. Venaille	F
10h15 - 12h15	Advanced Computational Chemistry A. Padua	G + CBP			Computational Quantum Physics T. Roscilde & F. Mezzacapo	F	Computational Fluid Dynamics E. Levêque, G. Laibe & A. Venaille	CBP		
13h30 - 15h30			Approche quantique de la réactivité catalytique P. Raybaud	H			Computational Fluid Dynamics E. Levêque, G. Laibe & A. Venaille	H + CBP		
15h45 - 17h45							Computational Fluid Dynamics E. Levêque, G. Laibe & A. Venaille	H + CBP	Computational Quantum Physics T. Roscilde & F. Mezzacapo	C

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//Semestre 3C

Cours en bloque (2 semaines):

**Chimie théorique "Label Réseau Chimie Théorique Français"
possibilité de suivre l'école d'hiver "MolSim" à Amsterdam**

Séminaire "Stage bibliographique"

Projet computationnelle

// Master 2 sciences de la matière – orientation Physique et Chimie Computationnelle: Multiscale Modelling Curriculum

S3a: September/October			S3b: November/December		S3c: January	S4: Feb.-July					
Lundi	8h	Photochemistry & Photophysics	Computational Chemistry		Physics M2 Winter School (Lyon)	Computational Project	Research Internship (Feb.-July)				
	10h	Computational Chemistry									
	14h	Computational Statistical Physics									
	16h										
Mardi	8h		Computational Quantum Physics		or	Computational Project		Research Internship (Feb.-July)			
	10h										
	14h	Approche quantique de la réactivité catalytique									
	16h	Computational Statistical Physics									
Mercredi	8h		Computational Quantum Physics		Understanding Molecular Simulation				Research Internship (Feb.-July)		
	10h										
	14h	Computational Project: TP Scientific Software Development									
	16h										
Jeudi	8h	Density functional theory of solids and molecules (M1)			or	Literature Project				Research Internship (Feb.-July)	
	10h										
	14h		Computational Fluid Dynamics								
	16h										
Vendredi	8h		Computational Fluid Dynamics		RCTF Theoretical Chemistry winter school (Lyon)						Research Internship (Feb.-July)
	10h										
	14h	Photochemistry & Photophysics									
	16h		Computational Quantum Physics								

// Master 2 sciences de la matière – orientation Physique et Chimie Computationnelle: Computational Chemistry Curriculum

S3a: September/October			S3b: November/December		S3c: January		S4: Feb.-July	
Lundi	8h	Photochemistry & Photophysics	Computational Chemistry		Physics M2 Winter School (Lyon)	Computational Project	Research Internship (Feb.-July)	
	10h	Computational Chemistry						
	14h	Computational Statistical Physics						
	16h							
Mardi	8h		Computational Quantum Physics		or			
	10h							
	14h	Approche quantique de la réactivité catalytique						
	16h	Computational Statistical Physics						
Mercredi	8h		Computational Quantum Physics		Understanding Molecular Simulation			
	10h	Méc. réactionnels (M2 Doua)	Chimie supra (M2 Doua)					
	14h							
	16h	Computational Project: TP Scientific Software Development						
Jeudi	8h				MolSim winter school (Amsterdam)			
	10h							
	14h							
	16h							
Vendredi	8h				or	Literature Project		
	10h							
	14h							
	16h							
Vendredi	8h				RCTF Theoretical Chemistry winter school (Lyon)			
	10h	Méc. réactionnels (M2 Doua)	Chimie supra (M2 Doua)					
	14h	Photochemistry & Photophysics						
	16h		Computational Quantum Physics					

// Master 2 sciences de la matière – orientation Physique et Chimie Computationnelle: Statistical Physics Curriculum

		S3a: September/October		S3b: November/December		S3c: January		S4: Feb.-July
Lundi	8h							
	10h							
	14h	Computational Statistical Physics						
	16h							
Mardi	8h			Computational Quantum Physics		Physics M2 Winter School (Lyon)	and / or	
	10h			Phase transitions and critical phenomena				
	14h							
	16h	Computational Statistical Physics						
Mercr edi	8h	Advanced Statistical Mechanics		Computational Quantum Physics		Computational Project	Research Internship (Feb.-July)	
	10h							
	14h	Computational I Project: TP SSD	Nonlinear physics and instabilities					
	16h							
Jeudi	8h					and / or		
	10h			Computational Fluid Dynamics				
	14h							
	16h							
Vendr edi	8h			Computational Fluid Dynamics		Literature Project		
	10h	Advanced Statistical Mechanics		Phase transitions and critical phenomena				
	14h							
	16h	Nonlinear physics and instabilities		Computational Quantum Physics				

// Master 2 sciences de la matière – orientation Physique et Chimie Computationalle: Fluid Dynamics and Nonlinear Physics Curriculum

Master 2 Sciences de la Matière - Orientation: Physique et Chimie - Computational Fluid Dynamics and Nonlinear Physics Curriculum							
S3a: September/October			S3b: November/December		S3c: January	S4: Feb.-July	
Lundi	8h		Advanced fluid mechanics and turbulence			Physics M2 Winter School (Lyon) and / or Computational Project and / or Literature Project	Research Internship (Feb.-July)
	10h						
	14h	Computational Statistical Physics					
	16h						
Mardi	8h						
	10h						
	14h						
	16h	Computational Statistical Physics					
Mercredi	8h						
	10h						
	14h	Nonlinear physics and instabilities	Advanced fluid mechanics and turbulence				
	16h						
Jeudi	8h						
	10h		Computational Fluid Dynamics				
	14h						
	16h						
Vendredi	8h		Computational Fluid Dynamics				
	10h						
	14h		Geophysics Computational Project (M2 SdT)				
	16h	Nonlinear physics and instabilities					

// Master 2 sciences de la matière – orientation Physique et Chimie Computationnelle: Astrophysics Curriculum

S3a: September/October		S3b: November/December	S3c: January	S4: Feb.-July
Lundi	8h			Physics M2 Winter School (Lyon)
	10h			
	14h	General relativity and cosmology		
	16h			
Mardi	8h			and / or
	10h	General relativity and cosmology		
	14h			
	16h			
Mercredi	8h			Computational Project
	10h			
	14h	Nonlinear physics and instabilities		
	16h			
Jeudi	8h			and / or
	10h			
	14h	Computational Fluid Dynamics		
	16h			
Vendredi	8h	Computational Fluid Dynamics		Literature Project
	10h			
	14h	Geophysics Computational Project (M2 SdT)		
	16h	Nonlinear physics and instabilities		

// Master 2 sciences de la matière – orientation Physique et Chimie Computationnelle: Soft Matter Curriculum

S3a: September/October			S3b: November/December		S3c: January	S4: Feb.-July	
Lundi	8h	Advanced Soft Condensed Matter				Physics M2 Winter School (Lyon) and / or Computational Project and/or Literature Project	Research Internship (Feb.-July)
	10h						
	14h	Computational Statistical Physics	Biophysics				
	16h						
Mardi	8h						
	10h	Phase transitions and critical phenomena					
	14h						
	16h	Computational Statistical Physics	Biophysics				
Mercredi	8h	Advanced Statistical Mechanics					
	10h						
	14h	Computational Project: TP Scientific Software Development					
	16h						
Jeudi	8h	Advanced Soft Condensed Matter					
	10h		Computational Fluid Dynamics				
	14h						
	16h						
Vendredi	8h	Advanced Soft Condensed Matter	Computational Fluid Dynamics				
	10h	Advanced Statistical Mechanics	Phase transitions and critical phenomena				
	14h						
	16h						

// Master 2 sciences de la matière – orientation Physique et Chimie Computationnelle: Hard Condensed Matter Curriculum

S3a: September/October		S3b: November/December	S3c: January	S4: Feb.-July
Lundi	8h	Photochemistry & Photophysics	Computational Chemistry	Physics M2 Winter School (Lyon)
	10h	Computational Chemistry		
	14h	Computational Statistical Physics		
	16h			
Mardi	8h		Computational Quantum Physics	or RCTF Theoretical Chemistry winter school (Lyon)
	10h		Nanophysics	
	14h		Advanced condensed matter: Quantum Many-Body Physics	
	16h	Computational Statistical Physics		
Mercredi	8h		Computational Quantum Physics	and / or Research Internship (Feb.-July)
	10h	Advanced EM and ultrafast optics		
	14h	Computational Project: TP Scientific Software Development		
	16h			
Jeudi	8h			Computational Project
	10h	Advanced EM and ultrafast optics	Nanophysics	
	14h			
	16h			
Vendredi	8h		Advanced condensed matter: Quantum Many-Body Physics	and / or Literature Project
	10h			
	14h	Photochemistry & Photophysics		
	16h		Computational Quantum Physics	

