Name of Higher Education Institution: Institute of Optics and Precision Mechanics
Department: Precision Mechanics

SYLLABUS OF MATTER
(To be published on the institution's website)

Mathematics 2

MASTER COURSE TEACHER		*Name and Surname of the teacher*			
		Reception of students per week			
Email	ishak.alia@univ-setif.dz	Day:	*Sunday*	Hour:	*13:00*
Office Phone N°		Day:	*Tuesday*	Hour:	*13:00*
Secretary Phone		Day:	*Wednesday*	Hour:	*08:00*
Other		Building:	*IOMP*	Office:	*S. ENS*

DIRECTED WORK
(Reception of students per week)

Surname and first name of the teachers	Office/ reception room	Session 1		Session2		Session3	
		Day	Hour	Day	Hour	Day	Hour
Dr Alia Ishak	IOMP	Sun	13 :00	Tues	13 :00	Wed	08 :00
Dr Naas Ihcene	IOMP	Sun	13 :00	Tues	13 :00	Thur	13 :00

PRACTICAL WORK
(Reception of students per week)

Surname and first name of the teachers	Office/ reception room	Session1		Session2		Session3	
		Day	Hour	Day	Hour	Day	Hour

COURSE DESCRIPTION	
Objective	This course covers the basics of linear calculus (Vector and Matrix Calculus), direct methods for solving coupled systems of linear algebraic equations, integral calculus and ordinary differential equations.
Unit Teaching Type	Fundamental teaching unit
Short content	Chapter one: Determinants and matrices; Chapter two: Coupled systems of linear algebraic equations; Chapter three: integral calculus; Chapter four: ordinary differential equations Chapter five: function of several variables.
Subject Credits	*6*
Matter coefficient	*3*
Participation Weighting	*35%*
Attendance Weighting	*15%*
C.C. Average Calculation	Two Tests: 50%; Participation: 35%; Attendance:15%.
Targeted skills	At the end of this course, the student should be able to know the basics of matrix calculus, three methods for solving systems of linear equations, the basics of integral calculus and some methods for solving first and second order ordinary differential equations.

EVALUATION OF CONTINUOUS KNOWLEDGE CONTROLS							
FIRST KNOWLEDGE CHECK							
Day	Session	Duration	Type (1)	Author. Docum. (Yes, No)	Scale	Exchange after evaluation (Copy consult. date)	Evaluation criteria(2)
		30 min	W	No	5 points	Cliquez ici pour entrer une date.	R
SECOND KNOWLEDGE CHECK							
Day	Session	Duration	Type (1)	Author. Docum. (Yes, No)	Scale	Exchange after evaluation (Copy consult. date)	Evaluation criteria (2)
		30 min	W	No	5 points	Cliquez ici pour entrer une date.	R

(1) Type: W=Written, IP=Individual Present., CP=Class Present., EX=experiment., MCQ

(2) Evaluation criteria: A=Analysis, S=Synthesis, AR=Argumentation, AP=Approach, R=Results

EQUIPMENT AND MATERIALS USED	
Platform addresses	https://iomp-courses.univ-setif.dz/course/view.php?id=166
Application names (Web, local network)	Moodle, Telegram.
Handouts	
Laboratory materials	

Protective materials	
Field trip equipment	

EXPECTATIONS	
Expected of students (Participation-involvement)	
Teacher expectations	

BIBLIOGRAPHY	
Books and digital resources	1. K. Allab, Eléments d'Analyse, OPU, Alger, 1984 2. N. Piskounov, Calcul différentiel et intégral, Tome 1, Editions Mir, Moscou, 1980. 3. Abdelkader Khelladi, Introduction à l'analyse mathématique: Intégration; calculs des primitives; équations différentielles, OPU, 2009.
Articles	
Handouts	http://exo7.emath.fr/cours/ch_matlin.pdf http://exo7.emath.fr/cours/ch_equadiff.pdf http://exo7.emath.fr/cours/ch_int.pdf http://exo7.emath.fr/cours/ch_syslin.pdf
Web sites	http://exo7.emath.fr/un.html https://www.bibmath.net/index.php

Wet stamp of the department

Name of Higher Education Institution: University of Setif1 Institute of Optics and Precision Mechanics Department: Tronc Commun

SYLLABUS OF MATTER **(To be published on the institution's website)**
Physics 2

MASTER COURSE TEACHER		**Dr ROUAG Nouari**			
		Reception of students per week			
Email	nouari.rouag@univ-setif.dz	Day:	*Sunday*	Hour:	*13:00*
Office Phone N°		Day:	*Tuesday*	Hour:	*13:00*
Secretary Phone		Day:	*Wednesday*	Hour:	*08:00*
Other		Building:	*IOMP*	Office:	*S. ENS*

DIRECTED WORK
(Reception of students per week)

Surname and first name of the teachers	Office/ reception room	Session 1		Session2		Session3	
		Day	Hour	Day	Hour	Day	Hour
Dr ROUAG Nouari	IOMP	Sunday	13 :00	Monday	11 :00	Wed	11:00
Dr LANGUER Hassina	IOMP	Tuesday	13 :00	Wedn.	13 :00	Thur	13 :00

PRACTICAL WORK
(Reception of students per week)

Surname and first name of the teachers	Office/ reception room	Session1		Session2		Session3	
		Day	Hour	Day	Hour	Day	Hour

COURSE DESCRIPTION	
Objective	Electricity is the set of physical phenomena associated with the presence and movement of carrer charges in the matter. Also, electricity is related to magnetism, both of which are part of the phenomenon of electromagnetism, as described by Maxwell's equations. The object of this module is the study of the interaction between static and moving charged particles.
Unit Teaching Type	Fundamental teaching unit

Short content	Chapter 1 Math Reminders Chapter 2: Electrostatics. Chapter 3: Gauss's theorem. Chapter 4: Conductors under electrostatic equilibrium. Chapter 5: Electrokinetics. Chapter 6: Electromagnetism.
Subject Credits	*6*
Matter coefficient	*3*
Participation Weighting	*35%*
Attendance Weighting	*15%*
C.C. Average Calculation	The average of the two tests (10 points)+ Participation (7 points)+ Attendance (3 points)
Targeted skills	Apply and understand the fundamental laws of electricity.

EVALUATION OF CONTINUOUS KNOWLEDGE CONTROLS							
FIRST KNOWLEDGE CHECK							
Day	Session	Duration	Type (1)	Author. Docum. (Yes, No)	Scale	Exchange after evaluation (Copy consult. date)	Evaluation criteria(2)
		30 min	W	No	5 points	Cliquez ici pour entrer une date.	R
SECOND KNOWLEDGE CHECK							
Day	Session	Duration	Type (1)	Author. Docum. (Yes, No)	Scale	Exchange after evaluation (Copy consult. date)	Evaluation criteria (2)
		30 min	W	No	5 points	Cliquez ici pour entrer une date.	R

(1) Type: W=Written, IP=Individual Present., CP=Class Present., EX=experiment., MCQ

(2) Evaluation criteria: A=Analysis, S=Synthesis, AR=Argumentation, AP=Approach, R=Results

EQUIPMENT AND MATERIALS USED	
Platform addresses	https://iomp-courses.univ-setif.dz/course/view.php?id=166
Application names (Web, local network)	Moodle, Telegram.
Handouts	
Laboratory materials	
Protective materials	
Field trip equipment	

EXPECTATIONS	
Expected of students (Participation-involvement)	
Teacher expectations	

BIBLIOGRAPHY	
Books and digital resources	1. Electricité générale,T. Neffati, Dunnod2008 2. Electricité générale,D. Bohn, SAEP 2009 3. Electricité générale,Y. Granjon, Dunnod2009 4. M.-N. SANZ, D. CHARDON, F. VANDENBROUCK, B. SALAMITO, Physique tout-enun PC, PC* : cours et exercices corrigés ; Dunod, Paris (2014) 5. R. A. SERWAY, J. W. JEWETT, JR., A. DUCHARME, M. PÉRIARD, Physique - Tome 2 Electricité et magnétisme, Ed. De Boeck, (2013) 6. D. FEDULLO, T. GALLAUZIAUX, Electricité: Réaliser son installation par soi-même, Ed. Eyrolles, (2012)
Articles	
Handouts	L. AÏT GOUGAM, M. BENDAOUD, N. DOULACHE, F. MEKIDECHE, Polycopié de physique 2, OPU Alger, (2012)
Web sites	e-learning gauss - Recherche Google MP/PC/PSI/PT Cours électrostatique. Théorème de Gauss (1/3) - YouTube COURS 14 PHYSIQUE 2 USTHB Les condensateurs - YouTube COURS 13 PHYSIQUE 2 USTHB Influence électrique - YouTube COURS 12 PHYSIQUE 2 USTHB Conducteurs en équilibre - YouTube

Wet stamp of the department

Name of HEI: University of Setif1, Institute of Optics and Precision Mechanics (IOMP) Department: Common Core St

SYLLABUS OF MATTER **(To be published on the institution's website)**
Computer science II

MASTER COURSE TEACHER		**Nekkaa Foudil**			
		Reception of students per week			
Email	foudil.nekkaa@univ-setif.dz	Day:	*Monday*	Hour:	*13:00*
Office Phone N°	None	Day:	*Tuesday*	Hour:	*13:00*
Secretary Phone	None	Day:	*Thursday*	Hour:	*14:00*
Other	None	Building:	*IOMP*	Office:	*P-Hall*

DIRECTED WORK
(Reception of students per week)

Surname and first name of the teachers	Office/ reception room	Session 1		Session2		Session3	
		Day	Hour	Day	Hour	Day	Hour

PRACTICAL WORK
(Reception of students per week)

Surname and first name of the teachers	Office/ reception room	Session1		Session2		Session3	
		Day	Hour	Day	Hour	Day	Hour
Nekkaa Foudil	*P-Hall*	*Monday*	13 :00	*Tuesday*	13 :00	*Thursd*	14:00
BETKA Messaoud	*P-Hall*	Sunday	13 :00	*Monday*	13 :00	*Tuesday*	13 :00

COURSE DESCRIPTION	
Objective	▪ Use and manipulate data structures (arrays) ▪ Use and explain the relationship between pointers and arrays. ▪ Create and employ functions: passing arguments.
Type of Teaching Unit	MTU
Short content	Chapter 1: arrays; Chapter 2: Pointers; Chapter 3: Functions

SubjectCredits	*4*
Matter coefficient	*2*
Participation Weighting	*15%*
Attendance Weighting	*10%*
Average Calculation of c.c	two tests:75%, Participation:15%, Attendance:10%
Targeted skills	Understand the operating principle of programming languages (C)

EVALUATION OF CONTINUOUS KNOWLEDGE CONTROLS							
FIRST KNOWLEDGE CHECK							
Day	Session	Duration	Type (1)	Author. Docum. (Yes, No)	Scale	Exchange after evaluation (Copy consult. date)	Evaluation criteria(2)
		45 min	W	No	40%(8pts)	Cliquez ici pour entrer une date.	R
SECOND KNOWLEDGE CHECK							
Day	Session	Duration	Type (1)	Author. Docum. (Yes, No)	Scale	Exchange after evaluation (Copy consult. date)	Evaluation criteria (2)
		45 min	W	No	40%(8pts)	Cliquez ici pour entrer une date.	R

(1) Type: W=Written, IP=Individual Present., CP=Class Present., EX=experiment., MCQ

(2) Evaluation criteria: A=Analysis, S=Synthesis, AR=Argumentation, AP=Approach, R=Results

EQUIPMENT AND MATERIALS USED	
Platform addresses	https://iomp-courses.univ-setif.dz/course/view.php?id=169
Application names (Web, local network)	moodle
Handouts	
Laboratory materials	Computers (desktop PC)
Protective materials	None
Field trip equipment	None

EXPECTATIONS	
Expected of students (Participation-involvement)	He must make the necessary efforts to be able to understand
Teacher expectations	Completion of the program on time.

BIBLIOGRAPHY	
Books and digital resources	1) GAUDEL, M., Soria, M., and FROIDEVAUX, C. (1987). Types de données et algorithmes. Number vol. 1 in Collection didactique. Institut national de recherche en informatique et en automatique. 2) SEDGEWICK, R. (1991). Algorithmes en langage C. I.I.A. Informatique intelligence artificielle. Dunod.
Articles	

Handouts	https://www.rocq.inria.fr/secret/Anne.Canteaut/COURS_C/cours.pdf
Web sites	https://zestedesavoir.com

Wet stamp of the department

Name of Higher Education Institution: *Ferhat ABBAS University of Setif*
Department: Institute of optics and precision mechanics

SYLLABUS OF MATTER
(To be published on the institution's website)

Maths 2

MASTER COURSE TEACHER		*Name and Surname of the teacher*			
		Reception of students per week			
Email	*Sara.dridi@univ-setif.dz*	Day:	*Monday*	Hour:	*11*
Office Phone N°		Day:	*Wednesday*	Hour:	*10*
Secretary Phone		Day:	*Tuesday*	Hour:	*11*
Other	*0799092160*	Building:	*Iomp*	Office:	

DIRECTED WORK
(Reception of students per week)

Surname and first name of the teachers	Office/ reception room	Session 1		Session 2		Session 3	
		Day	Hour	Day	Hour	Day	Hour
Dr. Dridi Sara	*DW. Room*	*Monday*	*13:00*	*Tuesday*	*9:30*		
Dr. Ihcene nass	*DW. Room*	*Tuesday*	*11:00*	*Thursday*	*11:00*		

PRACTICAL WORK
(Reception of students per week)

Surname and first name of the teachers	Office/ reception room	Session 1		Session 2		Session 3	
		Day	Hour	Day	Hour	Day	Hour

COURSE DESCRIPTION	
Objective	*This course entitled maths 2 deals with the calculation of the primitives, matrices and determinants, systems of equations, differential equations and functions of several variables which constitute the fundamental basis of real analysis and linear algebra.*
Unit Teaching Type	*Basic unit*
Short content	
Subject Credits	*03*
Matter coefficient	*03*
Participation Weighting	
Attendance Weighting	
C.C. Average Calculation	*(exam* 0.6+ DW*0.4)*
Targeted skills	1. *Know how to solve differential equations of order 1 and 2.* 2. *Know how to calculate the primitives of real functions.* 3. *Know how to solve systems of linear equations.* 4. *Know how to study functions of several variables.* 5. *To learn the basic notions of matrices and determinants.*

EVALUATION OF CONTINUOUS KNOWLEDGE CONTROLS							
FIRST KNOWLEDGE CHECK							
Day	Session	Duration	Type (1)	Author. Docum. (Yes, No)	Scale	Exchange after evaluation (Copy consult. date)	Evaluation criteria (2)
20/03/2023		30 min	W	No	05	22/03/2023	R
SECOND KNOWLEDGE CHECK							
Day	Session	Duration	Type (1)	Author. Docum. (Yes, No)	Scale	Exchange after evaluation (Copy consult. date)	Evaluation criteria (2)
18/04/2023		30 min	W	No	05	26/04/2023	R

(1) Type: W=Written, IP=Individual Present., CP=Class Present., EX=experiment., MCQ

(2) Evaluation criteria: A=Analysis, S=Synthesis, AR=Argumentation, AP=Approach, R=Results

EQUIPMENT AND MATERIALS USED	
Platform addresses	https://moodle-ft.univ-setif.dz/
Application names (Web, local network)	
Handouts	

Laboratory materials	
Protective materials	
Field trip equipment	

EXPECTATIONS	
Expected of students (Participation-involvement)	The students will be able to: 1. Solve first and second order differential equations. 2. Compute primitives of real functions. 3. Solve systems of linear equations. 4. Study functions of several variables.
Teacher expectations	

BIBLIOGRAPHY	
Books and digital resources	1. Mohammed Hazi. Intégrale de Riemann, calcul des primitives, integrals impropres. Cours détaillé et exercices résolus, 2018. 2. Fonctions usuelles, exercices corrigés avec rappels de cours. Jean Jacques Calin et Jean Marie Morvan, 2008. 3. Mohammed Hazi, fonctions de plusieurs variables réelles, 2008
Articles	
Handouts	1. Cours d'algèbre université de Lile, exo7. 2. Cours d'analyse université de Lile, exo7.
Web sites	

Wet stamp of the department