

#### Block view of the study programme

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#### Block 1

*Notice* : The FAMEais Masters replaces the FAME+ Master within the same consortium: ULiège will host students from the first FAMEais cohort from the 2023/2024 academic year, while the last FAME+ students will graduate at the end of the 2022/2023 academic year. Within the FAMEais Masters, the course programme offered by ULiège is aimed at students who have acquired the first 60 credits within a partner university.

#### Compulsory courses

PHYS0974-1	<i>Materials physics and biophysics</i> - Maryse HOEBEKE, Alejandro SILHANEK	Q1	30	-	-	5
PHYS0930-1	<i>Atomic physics</i> - Thierry BASTIN, Peter SCHLAGHECK	Q1	30	-	-	5
PHYS0975-1	<i>Introduction to soft matter and complex systems</i> - Nicolas VANDEWALLE	Q1	30	-	-	5

#### Optional courses

In agreement with the Jury, choose a subject among :

##### Basic course

SSTG0016-1	<i>Training sessions and personal work</i> (english language) - COLLÉGIALITÉ, ISLV	Q2	15	45	-	5
PHYS0983-1	<i>Seminars in advanced physics I</i> (english language) - <i>Materials physics and biophysics</i> - COLLÉGIALITÉ - <i>Atomic physics</i> - COLLÉGIALITÉ - <i>Physics of soft matter and complex systems</i> - COLLÉGIALITÉ	TA	10	-	-	4
			10	-	-	
			10	-	-	

Choisir en accord avec le Jury des cours pour un total de 36 crédits parmi :

##### Atomic and nuclear

PHYS0932-1	<i>Cold atoms and atomic clocks</i> - Thierry BASTIN <b>Corequisite :</b> PHYS0930-1 - Physique atomique	Q2	20	10	-	4
PHYS2027-2	<i>Ultracold atoms and Bose-Einstein condensates</i> - Peter SCHLAGHECK <b>Corequisite :</b> PHYS3021-1 - Mécanique quantique avancée PHYS0930-1 - Physique atomique	Q2	25	-	-	4
PHYS0235-2	<i>Quantum optics</i> - John MARTIN <b>Corequisite :</b> PHYS3021-1 - Mécanique quantique avancée PHYS0930-1 - Physique atomique	Q2	20	10	-	4
PHYS0949-1	<i>Atomic structures modelling</i> - Pascal QUINET <b>Corequisite :</b> PHYS0930-1 - Physique atomique	Q2	10	10	-	4
PHYS0941-2	<i>Theoretical physics : Nuclei and particles</i> - JeanRené CUDELL	Q1	30	-	-	4
PHYS3021-1	<i>Advanced quantum mechanics</i> - Thierry BASTIN, John MARTIN, Peter SCHLAGHECK	Q1	30	-	-	4
PHYS0997-1	<i>Quantum information and computation</i> (english language) - François DAMANET	Q1	30	-	-	4

##### Soft Materials / Statistical Physics

PHYS0969-1	<i>Introduction to biophotonics</i> - Laurent DREESEN	Q2	20	10	-	4
PHYS0939-2	<i>Physics of non-linearities, chaos and fractals</i> - Nicolas VANDEWALLE <b>Corequisite :</b> PHYS0975-1 - Introduction à la matière molle et aux systèmes complexes	Q2	15	15	-	4
PHYS3020-1	<i>Discrete element method and soft materials</i> - Eric OPSOMER	Q2	15	15	-	4

#### Materials / Solid State

PHYS3003-1	<i>Physics of functional oxides</i> (english language) - Philippe GHOSEZ <b>Corequisite :</b> PHYS0974-1 - Physique des matériaux et biophysique	Q1	20	10	-	4
PHYS0980-1	(pas organisé en 2023-2024) <i>Spectroscopy of materials</i> (english language) <b>Corequisite :</b> PHYS0974-1 - Physique des matériaux et biophysique	Q1	20	10	-	4
PHYS3004-1	<i>Physics of nanomaterials</i> (english language) - JeanYves RATY <b>Corequisite :</b> PHYS0974-1 - Physique des matériaux et biophysique	Q1	20	10	-	4
PHYS0982-1	<i>Physics of semiconductors</i> (english language) - Ngoc Duy NGUYEN <b>Corequisite :</b> PHYS0974-1 - Physique des matériaux et biophysique	Q1	15	-	-	2
PHYS3023-1	<i>Physics of magnetic materials</i> (english language) - Eric BOUSQUET <b>Corequisite :</b> PHYS0974-1 - Physique des matériaux et biophysique	Q2	20	10	-	4
PHYS0981-1	<i>Quantum modelling of materials properties</i> (english language) - Philippe GHOSEZ, Matthieu VERSTRAETE <b>Corequisite :</b> PHYS0974-1 - Physique des matériaux et biophysique	Q1	20	10	-	4
CHIM0202-2	<i>Physical Chemistry</i> - Christian DAMBLON, Bernard LEYH	Q2	30	-	-	4
PHYS0987-1	<i>Physics of materials for energy</i> (english language) - Philippe GHOSEZ, Ngoc Duy NGUYEN	Q1	30	-	-	4
PHYS0988-1	<i>Intrinsic and induced topological properties of matter</i> (english language) - Bertrand DUPÉ	Q2	20	10	-	4
PHYS0998-1	<i>Physics of superconductors</i> (english language) - Alejandro SILHANEK	Q2	15	-	-	2

#### Quantum Physics and Relativity

PHYS2012-1	<i>Relativistic quantum mechanics and relativistic statistics</i> - Peter SCHLAGHECK	Q1	20	5	-	4
SPAT0012-1	<i>General relativity</i> (english language) - Guillaume MAHLER	Q1	30	10	-	4

#### Experimental Physics

PHYS0250-2	<i>Experimental statistical physics</i> - Stéphane DORBOLO <b>Corequisite :</b> PHYS0975-1 - Introduction à la matière molle et aux systèmes complexes	Q2	10	20	-	4
PHYS3019-1	<i>Techniques of experimental physics</i> - Geoffroy LUMAY	Q2	20	20	-	4
PHYS0943-1	<i>Spectroscopy of electronic paramagnetic resonance</i> - Maryse HOEBEKE <b>Corequisite :</b> PHYS0974-1 - Physique des matériaux et biophysique	Q2	15	15	-	4
PHYS0095-1	<i>The physics of accelerators and vacuum technologies</i> - David STRIVAY	Q2	10	10	-	4
PHYS0968-1	<i>Signal processing</i> - Alejandro SILHANEK	Q2	25	20	-	4
PHYS3037-1	<i>Nanofabrication : principles and techniques</i> (english language) - Ngoc Duy NGUYEN, Alejandro SILHANEK <b>Corequisite :</b> PHYS0974-1 - Physique des matériaux et biophysique	Q2	25	15	-	4

#### Optics and Imaging

PHYS0942-3	<i>Ionising radiations and imaging</i> - Alain SERET	Q1	20	5	-	4
PHYS0938-1	<i>Physics and cultural heritage</i> - David STRIVAY	Q1	15	5	-	4
PHYS0048-2	<i>Coherent and incoherent optics</i> (english language)	Q1				4

	- <i>Coherent optics and lasers applications</i> - Serge HABRAKEN		10	15	-	
	- <i>Laser physics</i> - Serge HABRAKEN		5	5	-	
PHYS0048-3	<i>Coherent and incoherent optics, Instrumental optics I</i> (english language) - Serge HABRAKEN	Q1	20	15	-	4
PHYS0128-1	<i>Magnetic Resonance Imaging - the Basics</i> (english language) - Laurent LAMALLE - [3d FW]	Q1	15	-	[+]	2
<b>Applied physics</b>						
INFO0939-1	<i>High performance scientific computing</i> (english language) - Christophe GEUZAIN - [20h Proj.]	Q1	30	15	[+]	5
MECA0470-1	<i>New methods in computational mechanics and physics</i> (english language) - Maarten ARNST, Eric BÉCHET, Ludovic NOELS - [40h Proj.]	Q2	20	-	[+]	5
ELEN0062-1	<i>Introduction to machine learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	Q1	30	5	[+]	6
<b>Didactics</b>						
PHYS0979-1	<i>Conceptual approach to basic physics</i> - Hervé CAPS, Maryse HOEBEKE	Q1	30	-	-	4
AESS0241-1	<i>Introduction to physics didactics</i> - Maryse HOEBEKE	Q1	20	-	-	4
[...]	Up to 20 credits (or more, in agreement with the Jury) in the two blocks may also be chosen in another study field or institution					
<b>Course Medical Physics</b>						
PHYS0952-3	<i>Imaging through ionising radiation</i> - Alain SERET	Q1	25	5	-	4
	<b>Corequisite :</b> PHYS0931-1 - Traitement des données PHYS0989-1 - Radiobiology PHYS0990-1 - Dosimétrie					
PHYS0989-1	<i>Radiobiology</i> (english language) - Olivier VAN HOEY	Q2	10	-	-	2
	<b>Corequisite :</b> PHYS0952-3 - Imagerie par radiations ionisantes PHYS0990-1 - Dosimétrie					
PHYS0990-1	<i>Dosimetry</i> - Véronique BAART, Luca PELLEGRINI	Q2	20	-	-	3
	<b>Corequisite :</b> PHYS0952-3 - Imagerie par radiations ionisantes PHYS0989-1 - Radiobiology					
RADI2001-1	<i>Radioprotection: hygiene problems</i> - Nadia WITHOFS	Q1	15	-	-	2
	<b>Corequisite :</b> PHYS0952-3 - Imagerie par radiations ionisantes BIOL0007-1 - Biologie tissulaire RADP0141-1 - Radioprotection PHYS0989-1 - Radiobiology PHYS0990-1 - Dosimétrie					
BIOL0007-1	<i>Tissue biology</i> - Marc THIRY	Q1	15	25	-	4
PHYL0644-1	<i>Human Anatomy and Physiology</i> - Pierre BONNET	Q2	30	-	-	3
ANAT0222-1	<i>Elements of Radiology</i> - Paul MEUNIER, Luaba TSHIBANDA, Christophe VALKENBORGH	Q1	10	5	-	2
CHIM0620-1	<i>Radiopharmaceutical Chemistry</i> - Thibault GENDRON	Q1	20	10	-	3
PHYS0128-1	<i>Magnetic Resonance Imaging - the Basics</i> (english language) - Laurent LAMALLE - [3d FW]	Q1	15	-	[+]	2
	<b>Corequisite :</b> PHYS0930-1 - Physique atomique					
RADP0141-1	<i>Radioprotection</i> - <i>Part a) Radioprotection techniques and complements</i> - Véra PIRLET	Q2	30	15	-	6

	- Part b) Legislation on radioprotection and the organisation of a radiotherapy, radiodiagnostic and nuclear medicine department - Véra PIRLET	10	-	-	
SSTG0041-1	Placement in medical radiophysics - Véronique BAART, Alain SERET - [12d Internship] <b>Corequisite :</b> PHYS0952-3 - Imagerie par radiations ionisantes PHYS0989-1 - Radiobiology PHYS0990-1 - Dosimétrie	Q2	2	-	[+] 7
STAT0420-1	Biostatistics 2 - AnneFrançoise DONNEAU	Q1	15	15	- 3
PHYS0968-1	Signal processing - Alejandro SILHANEK	Q2	25	20	- 4

#### Block 2

#### Compulsory course

SMEM0028-1	Final thesis - COLLÉGIALITÉ	TA	-	-	- 18
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#### Optional courses

In agreement with the Jury, choose a subject among :

#### Basic course

PHYS0984-1	Seminars in advanced physics II (english language) - Materials physics and biophysics - COLLÉGIALITÉ - Atomic physics - COLLÉGIALITÉ - Physics of soft matter and complex systems - COLLÉGIALITÉ <b>Prerequisite :</b> PHYS0983-1 - Séminaires de Physique avancée I	TA			4
			10	-	-
			10	-	-
			10	-	-

Choisir en accord avec le Jury des cours non déjà choisis pour un total de 8 crédits parmi :

#### Atomic and nuclear

PHYS0932-1	Cold atoms and atomic clocks - Thierry BASTIN <b>Corequisite :</b> PHYS0930-1 - Physique atomique	Q2	20	10	- 4
PHYS2027-2	Ultracold atoms and Bose-Einstein condensates - Peter SCHLAGHECK <b>Corequisite :</b> PHYS3021-1 - Mécanique quantique avancée PHYS0930-1 - Physique atomique	Q2	25	-	- 4
PHYS0235-2	Quantum optics - John MARTIN <b>Corequisite :</b> PHYS3021-1 - Mécanique quantique avancée PHYS0930-1 - Physique atomique	Q2	20	10	- 4
PHYS0949-1	Atomic structures modelling - Pascal QUINET <b>Corequisite :</b> PHYS0930-1 - Physique atomique	Q2	10	10	- 4
PHYS0941-2	Theoretical physics : Nuclei and particles - JeanRené CUDELL	Q1	30	-	- 4
PHYS3021-1	Advanced quantum mechanics - Thierry BASTIN, John MARTIN, Peter SCHLAGHECK	Q1	30	-	- 4
PHYS0997-1	Quantum information and computation (english language) - François DAMANET	Q1	30	-	- 4

#### Soft Materials / Statistical Physics

PHYS0969-1	Introduction to biophotonics - Laurent DREESEN	Q2	20	10	- 4
PHYS0939-2	Physics of non-linearities, chaos and fractals - Nicolas VANDEWALLE <b>Corequisite :</b>	Q2	15	15	- 4

PHYS0975-1 - Introduction à la matière molle et aux systèmes complexes

PHYS3020-1 *Discrete element method and soft materials* - Eric OPSOMER Q2 15 15 - 4

PHYS0948-1 *Microgravity* - Nicolas VANDEWALLE - [3d FW] Q2 10 20 [+] 4

**Corequisite :**

PHYS0975-1 - Introduction à la matière molle et aux systèmes complexes

#### Materials / Solid State

PHYS3003-1 *Physics of functional oxides* (english language) - Philippe GHOSEZ Q1 20 10 - 4

**Corequisite :**

PHYS0974-1 - Physique des matériaux et biophysique

PHYS0980-1 (pas organisé en 2023-2024) *Spectroscopy of materials* (english language) Q1 20 10 - 4

**Corequisite :**

PHYS0974-1 - Physique des matériaux et biophysique

PHYS3004-1 *Physics of nanomaterials* (english language) - JeanYves RATY Q1 20 10 - 4

**Corequisite :**

PHYS0974-1 - Physique des matériaux et biophysique

PHYS0982-1 *Physics of semiconductors* (english language) - Ngoc Duy NGUYEN Q1 15 - - 2

**Corequisite :**

PHYS0974-1 - Physique des matériaux et biophysique

PHYS3023-1 *Physics of magnetic materials* (english language) - Eric BOUSQUET Q2 20 10 - 4

**Corequisite :**

PHYS0974-1 - Physique des matériaux et biophysique

PHYS0981-1 *Quantum modelling of materials properties* (english language) - Philippe GHOSEZ, Matthieu VERSTRAETE Q1 20 10 - 4

**Corequisite :**

PHYS0974-1 - Physique des matériaux et biophysique

CHIM0202-2 *Physical Chemistry* - Christian DAMBLON, Bernard LEYH Q2 30 - - 4

PHYS0987-1 *Physics of materials for energy* (english language) - Philippe GHOSEZ, Ngoc Duy NGUYEN Q1 30 - - 4

PHYS0988-1 *Intrinsic and induced topological properties of matter* (english language) - Bertrand DUPÉ Q2 20 10 - 4

PHYS0998-1 *Physics of superconductors* (english language) - Alejandro SILHANEK Q2 15 - - 2

#### Quantum Physics and Relativity

PHYS2012-1 *Relativistic quantum mechanics and relativistic statistics* - Peter SCHLAGHECK Q1 20 5 - 4

SPAT0012-1 *General relativity* (english language) - Guillaume MAHLER Q1 30 10 - 4

#### Experimental Physics

PHYS0250-2 *Experimental statistical physics* - Stéphane DORBOLO Q2 10 20 - 4

**Corequisite :**

PHYS0975-1 - Introduction à la matière molle et aux systèmes complexes

PHYS3019-1 *Techniques of experimental physics* - Geoffroy LUMAY Q2 20 20 - 4

PHYS0943-1 *Spectroscopy of electronic paramagnetic resonance* - Maryse HOEBEKE Q2 15 15 - 4

**Corequisite :**

PHYS0974-1 - Physique des matériaux et biophysique

PHYS0095-1 *The physics of accelerators and vacuum technologies* - David STRIVAY Q2 10 10 - 4

PHYS0968-1 *Signal processing* - Alejandro SILHANEK Q2 25 20 - 4

PHYS3037-1 *Nanofabrication : principles and techniques* (english language) - Ngoc Duy NGUYEN, Alejandro SILHANEK Q2 25 15 - 4

**Corequisite :**

PHYS0974-1 - Physique des matériaux et biophysique

#### Optics and Imaging

PHYS0942-3	<i>Ionising radiations and imaging</i> - Alain SERET	Q1	20	5	-	4
PHYS0938-1	<i>Physics and cultural heritage</i> - David STRIVAY	Q1	15	5	-	4
PHYS0048-2	<i>Coherent and incoherent optics</i> (english language) - <i>Coherent optics and lasers applications</i> - Serge HABRAKEN - <i>Laser physics</i> - Serge HABRAKEN	Q1	10	15	-	4
			5	5	-	
PHYS0048-3	<i>Coherent and incoherent optics, Instrumental optics I</i> (english language) - Serge HABRAKEN	Q1	20	15	-	4
PHYS0128-1	<i>Magnetic Resonance Imaging - the Basics</i> (english language) - Laurent LAMALLE - [3d FW]	Q1	15	-	[+]	2
PHYS0125-3	<i>Instrumental optics II</i> (english language) - Serge HABRAKEN <b>Prerequisite :</b> PHYS0048-3 - Coherent and incoherent optics	Q2	25	15	-	4

#### Applied physics

INFO0939-1	<i>High performance scientific computing</i> (english language) - Christophe GEUZAIN - [20h Proj.]	Q1	30	15	[+]	5
MECA0470-1	<i>New methods in computational mechanics and physics</i> (english language) - Maarten ARNST, Eric BÉCHET, Ludovic NOELS - [40h Proj.]	Q2	20	-	[+]	5
ELEN0062-1	<i>Introduction to machine learning</i> (english language) - Pierre GEURTS, Louis WEHENKEL - [40h Proj.]	Q1	30	5	[+]	6

#### Didactics

PHYS0979-1	<i>Conceptual approach to basic physics</i> - Hervé CAPS, Maryse HOEBEKE	Q1	30	-	-	4
AESS0241-1	<i>Introduction to physics didactics</i> - Maryse HOEBEKE	Q1	20	-	-	4

[...] Up to 20 credits (or more, in agreement with the Jury) in the two blocks may also be chosen in another study field or institution

#### Course Medical Physics

QUAL0722-1	<i>Safety and quality assurance</i> (english language) - Edmond STERPIN <b>Prerequisite :</b> SSTG0041-1 - Stages en radiophysique médicale	Q2	5	10	-	2
RADL0442-1	<i>Radiobiology and radiopathology elements</i> - Chantal HUMBLET, Philippe MARTINIVE <b>Prerequisite :</b> ANAT0222-1 - Eléments d'anatomie radiologique PHYL0644-1 - Anatomie et physiologie humaines BIOL0007-1 - Biologie tissulaire	Q1	40	20	-	6
PHYS2024-1	<i>Transfer and co-registration of medical images</i> - Mohamed Ali BAHRI	Q1	15	-	-	2
CHIM0621-2	<i>Production and application of radioelements</i> - Thibault GENDRON - [3d FW]	Q2	15	-	[+]	2

#### Focus to be choosen

##### Research Focus

STRA0030-1	<i>Final thesis complement</i> - COLLÉGIALITÉ	TA	-	-	-	14
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[...] With the jury's agreement, choose from the Uliège programme complementary courses which have not already been chosen for a total of 16 credits, with a maximum of 20 credits outside the course over the two blocks.

##### Teaching focus

AESS1222-1	<i>Special didactics in physics : course and exercises (1st part)</i> -	Q1	40	-	-	3
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	APS, Maryse HOEBEKE				
	<b>Corequisite :</b>				
	PHYS0979-1 - Approche conceptuelle de la physique de base				
AESS1223-1	<i>Special didactics in physics : placements (1st part)</i>	Q1			<b>3</b>
	- <i>Observation placements</i> - Hervé CAPS, Maryse HOEBEKE - [10h Internship]	-	-	[+]	
	- <i>Teaching placements</i> - Hervé CAPS, Maryse HOEBEKE - [20h Internship]	-	-	[+]	
	- <i>Reflexive practical work</i> - Hervé CAPS, Maryse HOEBEKE	-	5	-	
	<b>Corequisite :</b>				
	PHYS0979-1 - Approche conceptuelle de la physique de base				
AESS2222-1	<i>Special didactics in physics : course and exercises (2nd part)</i> - Hervé CAPS, Maryse HOEBEKE	Q2	35	-	<b>4</b>
AESS2223-1	<i>Special didactics in physics : placements (2nd part)</i>	Q2			<b>5</b>
	- <i>Teaching placements</i> - Hervé CAPS, Maryse HOEBEKE - [20h Internship]	-	-	[+]	
	- <i>Reflexive practical work</i> - Hervé CAPS, Maryse HOEBEKE	-	5	-	
	- <i>Extra-scholar teaching activities</i> - Hervé CAPS, Maryse HOEBEKE	-	10	-	
AESS0202-1	<i>General didactics: course and exercises ; observation placements ; reflexive practices</i> - Annick FAGNANT - [10h Internship]	TA	30	10	[+] <b>4</b>
AESS0246-1	<i>Analysis of scholastic institutions and educational policies</i> - Annelise VOISIN	Q2	15	-	<b>1</b>
AESS0004-1	<i>Media education</i> - Jeremy HAMERS	Q1	15	-	<b>1</b>
AESS0248-1	<i>Elements of sociology of education</i> - JeanFrançois GUILLAUME	Q2	10	-	<b>1</b>
AESS0140-1	<i>Professional ethics and training to neutrality and citizenship</i> - Anne HERLA	Q2	25	-	<b>2</b>
AESS0143-1	<i>Educational Psychology of adolescents and young adults</i> - Annick FAGNANT	Q1	15	-	<b>2</b>
AESS0249-1	<i>Interdisciplinary seminar</i> - Annick FAGNANT	Q2	15	-	<b>1</b>
AESS0339-1	<i>Understand and manage the diversity of public schools</i> - Ariane BAYE	TA	10	15	<b>3</b>
<b>Professional Focus in Medical Radiological Physics</b>					
PHYS0991-1	<i>Special applications and techniques in radiotherapy</i> - Véronique BAART, Luca PELLEGRINI	Q1	35	-	<b>4</b>
	<b>Prerequisite :</b>				
	PHYS0989-1 - Radiobiology				
	PHYS0990-1 - Dosimétrie				
PHYS0992-1	<i>Special applications and techniques in radiodiagnostic (english language)</i> - Hilde BOSMANS	Q1	15	-	<b>2</b>
	<b>Prerequisite :</b>				
	PHYS0952-3 - Imagerie par radiations ionisantes				
	PHYS0989-1 - Radiobiology				
PHYS0993-1	<i>Special applications and techniques in nuclear medicine</i> - Claire BERNARD, Roland HUSTINX, Alain SERET	Q1	20	-	<b>3</b>
	<b>Prerequisite :</b>				
	PHYS0952-3 - Imagerie par radiations ionisantes				
	PHYS0989-1 - Radiobiology				
PHYS0994-1	<i>Internal dosimetry of radiopharmaceutical compounds</i> - Claire BERNARD, Christophe MERCIER, Alain SERET	Q1	8	4	<b>2</b>
	<b>Prerequisite :</b>				
	PHYS0952-3 - Imagerie par radiations ionisantes				
	PHYS0989-1 - Radiobiology				
PHYS0995-1	<i>Computerized dosimetry specialized in radiotherapy (english language)</i> - Edmond STERPIN	Q1	15	-	<b>2</b>

	<b>Prerequisite :</b> PHYS0989-1 - Radiobiology PHYS0990-1 - Dosimétrie				
PHYS0996-1	<i>2D &amp; 3D tomographical reconstruction</i> - Alain SERET	Q1	10	-	1
	<b>Prerequisite :</b> PHYS0931-1 - Traitement des données PHYS0952-3 - Imagerie par radiations ionisantes				
SSTG0015-2	<i>Training</i> - COLLÉGIALITÉ - [3mois Internship]	TA	-	-	[+] 16
	<b>Prerequisite :</b> PHYS0952-3 - Imagerie par radiations ionisantes PHYS0989-1 - Radiobiology PHYS0990-1 - Dosimétrie <b>Corequisite :</b> PHYS0991-1 - Applications et techniques spéciales en radiothérapie PHYS0992-1 - Applications et techniques spéciales en radiodiagnostic PHYS0993-1 - Applications et techniques spéciales en médecine nucléaire PHYS0994-1 - Dosimétrie interne des composés radiopharmaceutiques PHYS0995-1 - Computerized dosimetry specialized in radiotherapy PHYS0996-1 - Reconstruction tomographique 2D & 3D				

#### Bloc d'aménagement du programme de l'année

### Additional ECTS (max 15-60) Master in physics (120 ECTS)

#### Optional courses

The update course, worth a maximum of 60 credits, will be determined based on students' prior training.

[...] Between 15 and 60 ECTS of courses from "Bachelier en sciences physiques"