

Materials Sciences Department

Welcome Meeting

14/09/23

Alain Fave : International Academic ECTS Advisor

Elayne Giry : International Relationships @ SGM secretary

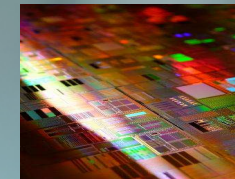
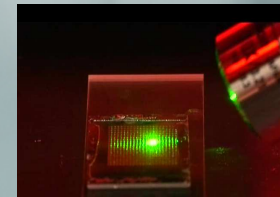
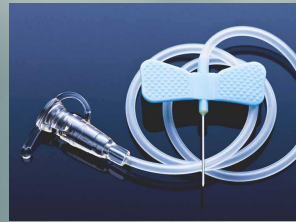
Agenda

- **Presentation of Materials Sciences Department**
 - Degree program
 - Courses taught in English
 - Lab works, projects, Internships
 - Laboratories and research facilities
 - Incoming students – 2023/2024
- **Nano Scale Engineering Master information's**
- **Language Centre Information's**
- **Sport activities Information's**
- **Next steps**
- **Contacts**

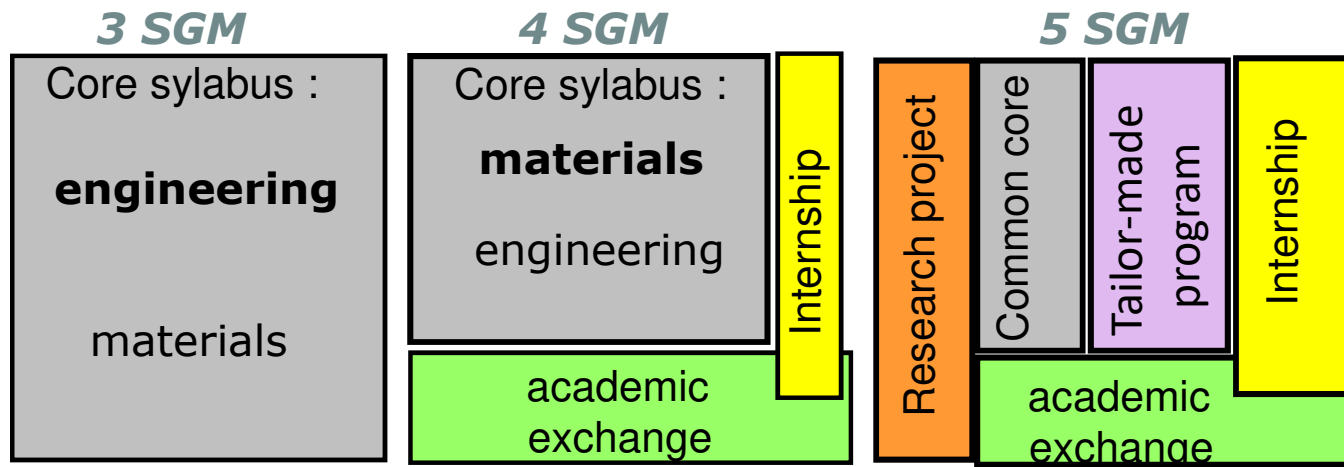
General engineering based on materials science training

Scientific and technical competences :

- Structural and functional materials
- Mechanical, Chemistry and Nanotechnology engineering
- Transversality
- Innovation and Research
- Project management.
- Multicultural and international teams



Degree program



Figures :

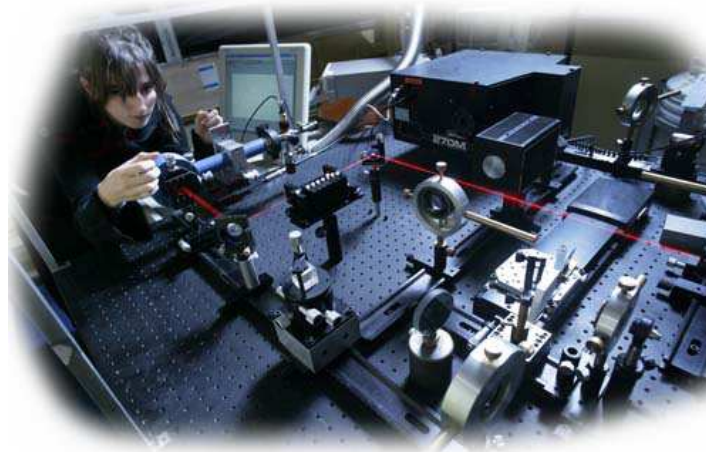
90 students, 50 % girls

Ac. Exchange : ~85 %

Abroad internships : ~55 %

International

Seminars and labworks in english



Internships:

3-4 months 4 SGM

4-6 months 5 SGM



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Degree program

<i>Group sizes</i>	3SGM	4SGM	5SGM
Lectures	90 students	75 students	20-60 students
Tutorial sessions	30 students	25 students	
Lab works	4 students	4 students	4 students
Projects	7 students (group project)	7 students (group project)	1 (lab project)

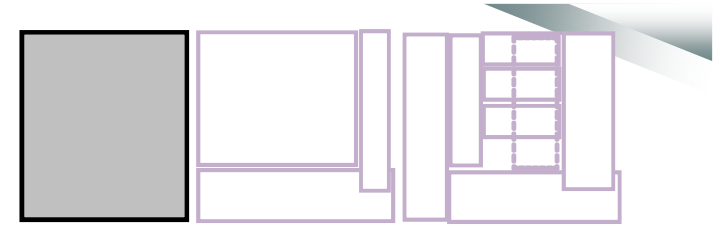
Tutorial sessions and lab works are taught in **english**



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Degree program: 1st year



General Engineering :

Mathematics
Electronics
Computer science
Sensors

Solid mechanics
Heat transfer
Fluid mechanics
Statistical physics

Materials Science :

Solid state physics
Defects and phase diagrams
Cristallography and analysis
Physico-chemistry :
organic and inorganic

Humanities :

Language
Communication
Sport

Projects :

Materials Engineering :
functions ?



Degree program: 2nd year

Materials Science :

Mechanics of materials
Semi-conductor materials and devices
Surface-interfaces-adhesion
Microsystems
Corrosion

Ceramics
Composites
Polymers
Metallurgy

General Engineering :

Elasticity
Finite element method
Non destructive systems

Humanities :

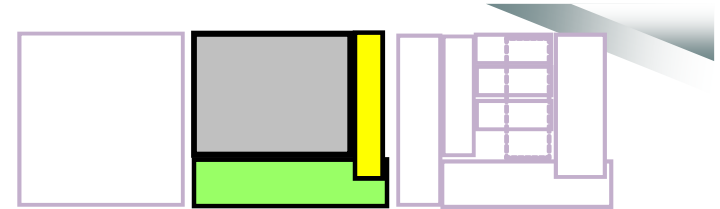
Language
Management
Sport

Project:

Technical project
on materials

Internship :

2-3 months



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Degree program: 3rd year

Core syllabus :

**Materials for Energy
Sustainable Materials
Management, language, sport**

Free choice of lectures

<https://exchange-student.insa-lyon.fr/>

Projects and Lab Works on different platforms

MSD : Structural Materials and Durability

PPF : Polymers and Processes

SCM Semi-conductors, Devices and Micro-Nanotechnologies

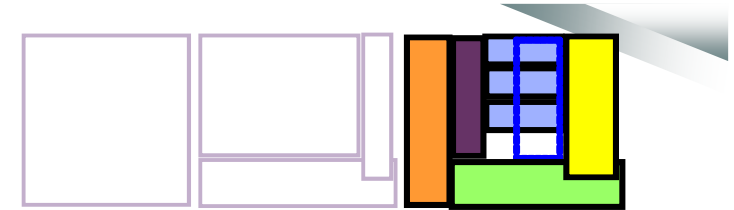
Research project :

~ 500h in a associated lab with SGM

« Education by/to research »

Internship :

6 months



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SGM courses taught in english

□ 3 SGM

• SGM-3-S1-EC-PHYMIC	Microscopic solid state physics	6 ECTS
• SGM-3-S1-ELESSY	Electronic circuits / system /signals	2 ECTS
• SGM-3-S2-EC-MATSC	Semi-Conductor Materials	3 ECTS
• SGM-3-S2-EC-MECA	Deformable solid mechanics	6 ECTS

□ 4 SGM

• SGM-4-S1-EC-COMPMM	Mechanical behaviour of materials	6 ECTS
• SGM-4-S1-ERDM	Elasticity and strength of materials	3 ECTS
• SGM-4-S2-EC-ELEFIN	Finite elements	4 ECTS

□ 5 SGM

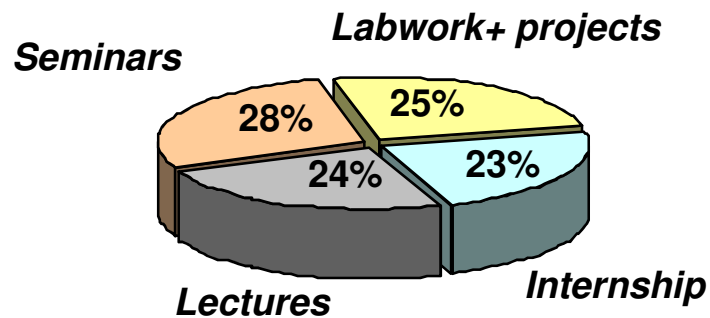
• SGM-5-S1-EC-MATENER	Materials for Energy	4 ECTS
• SGM-5-S1-EC-EMERTEC	Emerging technologies in advanced CMOS nanoelectronics	2 ECTS
• SGM-5-S1-EC-MATARCHI	Numerical Methods for the Mechanics of Architectural Materials	2 ECTS
• SGM-5-S1-EC-MATPHOT	Materials for photonics	2 ECTS

□ + all Labworks and Projects for 3, 4 and 5 SGM

□ + All the courses from the NanoScale Engineering international Master (NSE)

Lab works, projects, Internships

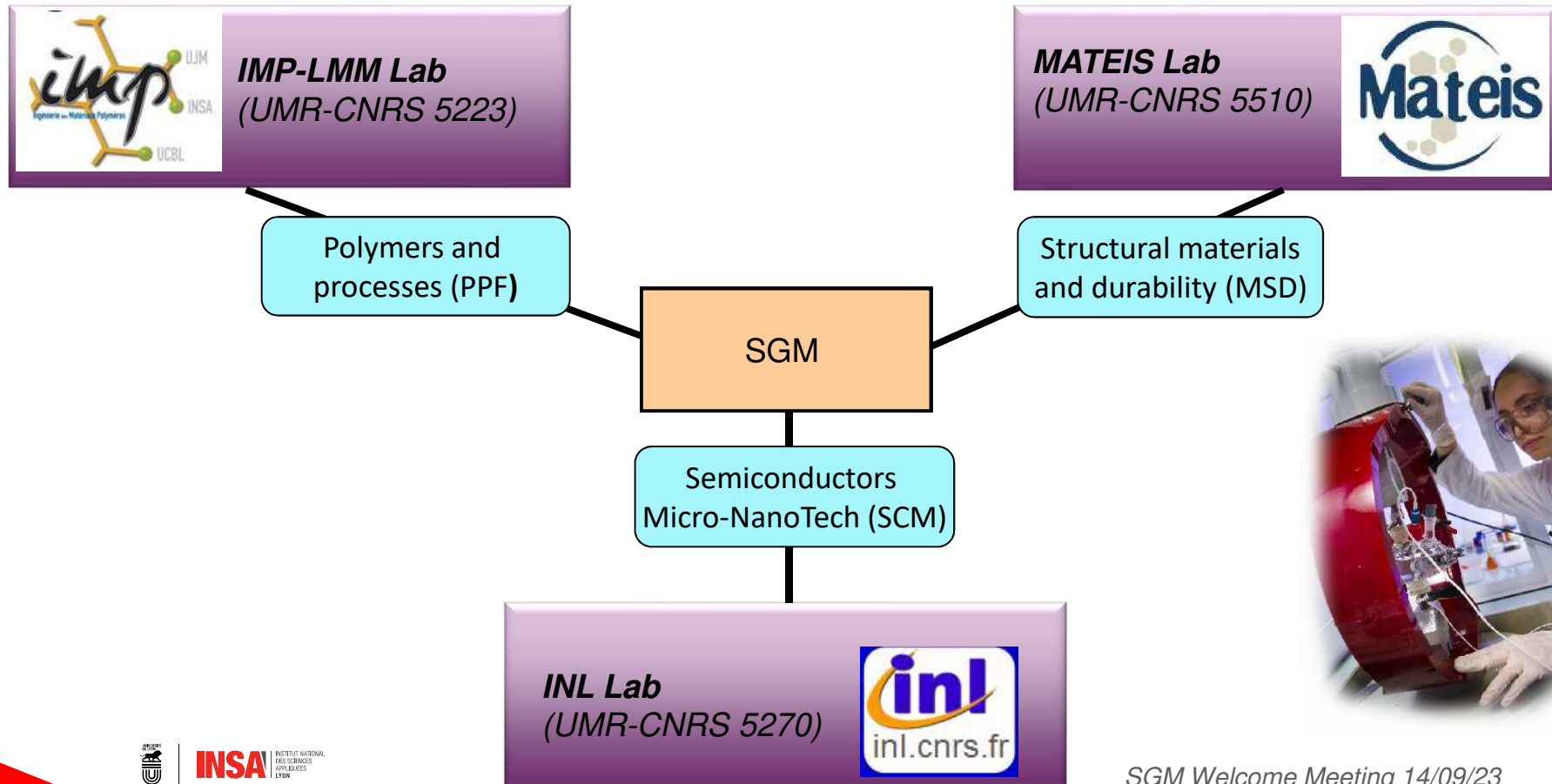
	<i>Lab work</i>	<i>Projects</i>
3 SGM	S1 : 4h /week S2 : 8h /week	- Functions : ~7 students - Small projects : ~4 ..
4 SGM	S1 : 9h /week S2 : 8h /week	- Technical : ~6 .. - Management : ~5 .. - internship : 1 ..
5 SGM	S1 : 8h /week	- research project : 1 .. - Internship : 1 ..



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Laboratories and research facilities



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IN exchange students – 2023/2024 Semester 1

- Kungliga Tekniska högskolan (KTH), Stockholm (Sweden)
- Tampere University (Finland)
- Norges Teknisk-Naturvitenskapelige Universitet (Norway)
- 2 students from Politecnico di Torino (Italy)
- Politecnico di Milano (Italy)
- Universidad Pontificia Comillas (Spain)
- The Hong Kong Polytechnic University, (Hong Kong - China)
- Hanyang University, Seoul (South Korea)



NanoScale Engineering Master information's

NSE

The NSE program is offered by École Centrale de Lyon (ECL), Institut des Sciences Appliquées de Lyon (INSA) and Université Claude Bernard Lyon1 (UCBL).
The Nanoscale Engineering program is multidisciplinary. It provides both theoretical and practical expertise of nanoscale structures and systems.

Exchange students registration:

- NSE courses are open to exchange students registered at INSA.
- INSA coordinator Prof. Patrice Chantrenne: patrice.chantrenne@insa-lyon.fr
- An official list for registration of INSA students in NSE courses will be sent to the Master coordinators for academic and administrative issues:
 - M1 level: Prof. San Miguel Fuster Alfonso : <alfonso.san-miguel-fuster@univ-lyon1.fr>
 - M2 level: Prof. Bertrand Vilquin : bertrand.vilquin@ec-lyon.fr
- The registration deadline is Friday september 22th .

Locations

- École Centrale de Lyon : Building F7@ ECL, Ecully
- INSA de Lyon, NSE Room, Building St Exupery, Villeurbanne
- UCBL: NSE Room, Building G.Lippmann, Villeurbanne

More information's : <http://master-nano.universite-lyon.fr/welcome-to-the-master-of-nanoscale-engineering-in-lyon-316731.kjsp>



Language Centre Information's

<https://crl.insa-lyon.fr/en/>

Contacts for SGM students:

Catherine Collin: catherine.collin@insa-lyon.fr

Jeannie Jouffroy: jeannie.jouffroy@insa-lyon.fr

Responsible of English Teaching
Manages the entire 2nd cycle (3, 4 an 5 SGM)

Choice of language courses

Rules for incoming students: **2 courses maximum**

- Mandatory: French as a Foreign Language (FLE). Level A1 to C1
 - FLE - French course
 - FLE - Oral and written comprehension Written production B1/B2
 - FLE - French Civilization course B2 to C1
 - Contacts:
 - Elisabeth AUMEUNIER elisabeth.aumeunier@insa-lyon.fr
 - Laurence BARRAI laurence.barrai@insa-lyon.fr
- Tandem (German and Spanish) and Intercomprehension The Conversation (English)
 - Contact : jeannie.Jouffroy@insa-lyon.fr



Sport activities Information's

Contacts for SGM students

Hervé Bizzotto : herve.bizzotto@insa-lyon.fr

Director of High Level Sport Section

Sport teacher

Specialized in Rugby coaching

Sport referent for SGM

Virginie Baraud : virginie.baraud@insa-lyon.fr

Directrice des études du CDS

THE INSA SPORT'S CENTER

Building of the SWIMMING POOL: 2nd floor

Entrance to the gym C for Hand ball, Badminton,



Sports Center entry, 2nd for information

Next steps



- **Finalize your learning agreement (LA):**
 - Check the compatibility of all your courses with time tables (MATERIALS and minor Dpt).
 - Book an appointment with A. Fave to discuss the LA for validation
 - Confirm the final version of the LA: e-mail to alain.fave@insa-lyon.fr before Friday 29 sept.
 - Sign your LA at Elayne's office
- **During the semester**
 - Follow your program diligently
 - Learn about teaching and evaluation methods
- **At the end of the term**
 - Exams and evaluations
 - Final marks registered by Elayne
 - Edition by Elayne of your transcripts of credits

Contacts for exchange students @ SGM

<http://sgm.insa-lyon.fr/>

INSA-Lyon
Département SGM
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69 631 Villeurbanne Cedex



Director		
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Lucile Joly-Pottuz (OUT)		lucile.joly-pottuz@insa-lyon.fr
Alain Fave (IN)		Alain.fave@insa-lyon.fr

Secretary		
Elayne Giry international relationships		elayne.giry@insa-lyon.fr
Patricia Langelot Secretariat des Etudes		patricia.langelot@insa-lyon.fr

International Academic Advisors:

Administration: sgm-echanges@insa-lyon.fr

Pedagogic: Alain.fave@insa-lyon.fr



Thank you !
&
Enjoy your stay !