Mechanics of Extreme Thin Composite Layers for Aerospace Applications

Study Plan Proposal

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Education and Culture

Erasmus Mundus

Outline

- Review of educational requirements
- Proposed study plan

REVIEW OF EDUCATIONAL REQUIREMENTS

Requirements of DocMASE framework

Type	ECTS credits	Attendance	Description/Notes
Scientific courses	15		
Intercultural skills	10		
Complementary skills	5		
Yearly summer schools		At least 2	
Annual workshops			Presentation of research work.
Seminars & Conferences			Attend conferences and present individual research work.
Scientific publications			Peer-reviewed publications.

Requirements of EMMA doctoral school

Type	ECTS credits	Hours	Notes	Description
Scientific courses	4	20		Reduced requirement for co-supervised project.
Transverse courses	4	20		Reduced requirement for co-supervised project.
Doctoriales			At least once	1-time for 5-days, preferably during the 2^{nd} year.
Seminars & Conferences				15 seminars
Yearly doctoral school seminar			At least once	Oral or poster presentation.
First quarter review				Written report.
Mid-term review				Oral presentation.
On-line portfolio of competences				To be regularly updated.
Scientific publications				At least one peer-reviewed publication.

Requirements of Luleå University of Technology

Type	ECTS credits	Hours	Description/Notes
Scientific & transverse courses	60		Minimum 60, maximum 120 ECTS credits.

↘ PROPOSED STUDY PLAN

Proposed first-year study plan.

Title	Code	ECTS credits	Hours
Aerospace Materials	T7005T	7.5	

Institution	Luleå University of Technology.
Organization	The course will take place from April 4, 2016 (week 14) to June 19, 2016 (week 24).
Requirements	It satisfies the DocMASE for scientific training, EMMA requirements for scientific courses and Luleå University of Technology requirements.
Needs	The focus of the course is strongly related to the project theme, as it reviews the methods for performance assessment and damage prediction for materials used in aerospace applications.
Status	Agreed upon with supervisors.

Proposed first-year study plan.

Title	Code	ECTS credits	Hours
Français langue étrangére (French as second language)	FI4 131 B	$\approx 8/9$	44

Institution	Université de Lorraine.
Organisation	The course will take place between 18:00 and 20:00 for two days a week (Monday and Tuesday), between January 4, 2016 and March 25, 2016.
Requirements	It satisfies the DocMASE for intercultural skills training and EMMA requirements for transverse courses. It could probably be transferred for credits to satisfy Luleå requirements.
Needs	As I have never studied French, the course will provide me with the basic tools to live and work in France as well with the foundations on which to build an independent learning path.
Status	Enrolled.

Proposed first-year study plan.

Title	Code	ECTS credits	Hours
Modeling of crystal behavior and textures	EMMA 05	5	24

Institution	Université de Lorraine.
Organisation	Distance learning format.
Requirements	It satisfies the DocMASE for scientific training and EMMA requirements for scientific courses. It could probably be transferred for credits to satisfy Luleå requirements.
Needs	The course is related to the doctoral school theme, but not directly to the research project. I think a higher-level course on crystal behaviour fits well and could help me acquire a more complete background in the field.
Status	Under discussion.

Proposed first-year study plan.

Title	Code	ECTS credits	Hours
Physique quantique à l'usage exclusif des non physiciens (Quantum physics for non-physicists)	EMMA 11	3	15

Institution	Université de Lorraine.
Organisation	The course will take place from 14:00 to 17:00 on February 24, March 02, 09, 16, 23, 2016 (a total of 5 lectures).
Requirements	It satisfies the DocMASE for scientific training and EMMA requirements for scientific courses. It could probably be transferred for credits to satisfy Luleå requirements.
Needs	The course is related to the doctoral school theme, but not directly to the research project. It will provide the basic understandings to work within the (sub-)atomic materials science field.
Status	Under discussion.

Proposed first-year study plan.

Title	Code	ECTS credits	Hours
Advanced use of Microsoft-Excel	RP2E MS 21	≈ 4	20

Institution	Université de Lorraine.
Organization	The course will take place from 09:00 to 17:00 (with a hour and a half lunch-break) on March 07, 08 and 10, 2016 (a total of 6 lectures).
Requirements	It satisfies the DocMASE for scientific training and EMMA requirements for scientific courses. It could probably be transferred for credits to satisfy Luleå requirements.
Needs	The course could greatly help the research work conducted in the doctoral project. As many simulations will be run and thus a large amount will be generated, an advanced knowledge of Microsoft-Excel could help automate the data analysis procedure and thus increase productivity.
Status	Under discussion.

Proposed first-year study plan.

Title	Code	ECTS credits	Hours
Modelisation des milieux heterogenes (Heterogeneous materials modeling)	RP2E MS 23	≈ 4	20

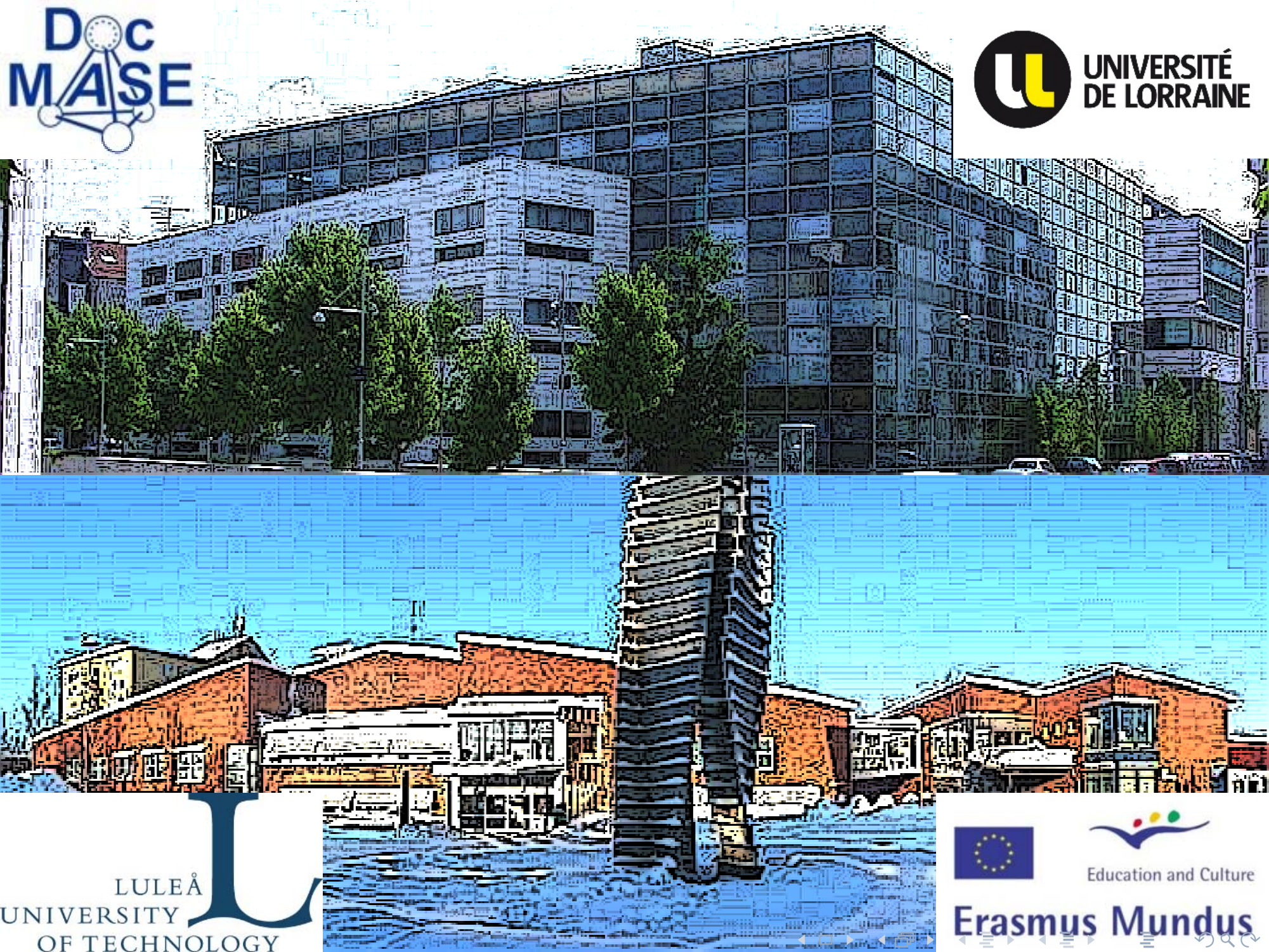
Institution	Université de Lorraine.
Organization	The course will take place on March 21, 22, 23, 24 and 25, 2016 (a total of 6 lectures).
Requirements	It satisfies the DocMASE for scientific training and EMMA requirements for scientific courses. It could probably be transferred for credits to satisfy Luleå requirements.
Needs	The subject of the course is related to the project theme, as it reviews the methods for the micro-mechanical and multi-scale analysis of heterogeneous materials, such as fiber reinforced polymer composites. It could potentially provide valid tools that can be put to fruitful use in the research work.
Status	Under discussion.

LULEÅ UNIVERSITY OF TECHNOLOGY

DocMASE

UNIVERSITÉ DE LORRAINE

THANK YOU!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