ALLIANCE 4 TECH

Management Engineering

CentraleSupélec

POLITECNICO DI MILANO

TU berlin

UCL

Vision and Values

Context, Vision, Values, Competitive Advantages and Governance structure

ALLIANCE 4 TECH

Vision

- Develop strategic alliance of 4 top Engineering Schools, of different **European cultures**, located in «**global cities**» in the «**economic heart**» of Europe, forming a **European Campus** without borders for their students and their faculty

  - With common values
  - Promoting common programmes and providing students with the opportunity to spend one or two terms in partner universities
  - Encouraging exchange of faculty members (also with double appointments)
  - Sharing critical technological infrastructures to ensure critical mass
  - With a common strategy towards emerging countries (joint promotion, shared locations)

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Values

- Through their joint actions, the values promoted by the **Alliance** are the following:

  - **Innovation** and **Entrepreneurship**
  - **Leadership** and **Creativity**
  - **Social Responsibility** and **Ethics**
  - **Cultural Diversity** and **International Environment**

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Management Engineering

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MSc in Management Engineering

- One of the first pilot projects launched within Alliance4Tech is the free-mobility without frontiers in the MSc in Management Engineering

- Participant universities:
  - Politecnico di Milano
  - TU Berlin
  - CentraleSupelec Paris

- 10 students selected for each University will start their mobility in the academic year 2016/2017

- During their academic year, in each semester, they will follow classes and take exams either in Milan, Berlin or Paris

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Process for Polimi students (1/2)

- Possible applicants:
  - Students enrolled in the first year of the MSc 2015/2016
  - Students enrolled in the third year of the Bachelor 2015/2016

- Interested students will have to apply through the international mobility call, selecting in one of their preferences «Alliance4Tech» as it was a destination

https://www.polimi.it/en/services-and-opportunities/experience-abroad/study-mobility/erasmus/call/

- No other documentation is required

- The selection is based on the same formula «grade» described in the international mobility call

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Process for Polimi students (2/2)

- Selected students will then decide each semester (approx. two months before) whether to study in Paris and/or Berlin
  - July 2016: decision to go either to Paris, Berlin or to stay in Milan in the I semester 2016/2017 (only at the second year of the MSc)
  - December/January 2016: decision to go either to Paris, Berlin or to stay in Milan in the II semester 2016/2017
- Scholarships will be aligned with other exchange programs, tuition fees normally paid to Polimi and waived at the host university
- The thesis might be done either in Italy or in France or in Germany, in any case:
  - at least one supervisor must be a professor of Polimi
  - the final defense must be done in Milan
- Grades obtained abroad will be considered as it is the case in all the other exchange programmes
- Graduates will receive their normal Diploma from Polimi plus a Joint Programme Certificate with the logos and the signature of the Rectors

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Suggested study plans

- Selected students will attend the standard curricula at their home institution. They will have the opportunity to select up to two semesters abroad (minimum 60 credits of courses at Polimi).

- In the following tables, pre-approved choices of courses are defined according to each specific orientation:
  - AM: Advance Manufacturing
  - IM: Industrial Management
  - SOSI: Sustainable Operations and Social Innovation
  - SCM: Supply Chain Management
  - EEM: Energy and Environmental Management
  - DMIE: Design Management, Innovation and Entrepreneurship
  - IB: International Business
  - DBMI: Digital Business and Market Innovation
  - F: Finance

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Suggested study plans

FIRST YEAR, SECOND SEMESTER

CS													
YR	SEM	COURSE	LANG.	ECTS	AM	IM	SOSI	SCM	EEM	DMIE	IB	DBMI	F
1	2	French/English Language	French/English	2	X	X	X	X	X	X	X	X	X
1	2	Humanities and Social Science	English/French	2	X	X	X	X	X	X	X	X	X
1	2	Innovation Project	English	9	X	X	X	X	X	X	X	X	X
1	2	Introduction to Purchasing (Elective 9)	English	3	X	X	X	X	X	X	X	X	X
1	2	Production Planning and Scheduling (Elective 12)	English	3	X	X	X	X	X	X	X	X	X
1	2	Random modeling (Elective 10)	English	3	X	X	X	X	X	X	X	X	X
1	2	Risk Assessment and Management (Elective 11)	English	3	X	X	X	X	X	X	X	X	X
1	2	Leadership in project (Elective 13b)	English	3	X	X	X	X	X	X	X	X	X

TUB													
YR	SEM	COURSE	LANG.	ECTS	AM	IM	SOSI	SCM	EEM	DMIE	IB	DBMI	F
1	2	Innovation Policy	English	6	X	X	X	X	X	X	X	X	X
1	2	Seminar Productivity, Innovation, Firm Performance	English	6	X	X	X	X	X	X	X	X	X
1	1,2	Supply Network Planning and Adv. Planning Systems	English	6	X	X	X	X	X	X	X	X	X
1	2	Technology Management	English	12	X	X	X	X	X	X	X	X	X

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Suggested study plans

SECOND YEAR, FIRST SEMESTER

		CS											
YR	SEM	COURSE	LANG.	ECTS	AM	IM	SOSI	SCM	EEM	DMIE	IB	DBMI	F
2	1-2	Concept Engineering	French	2,5	X	X	X			X			
2	1-2	Concept of Complex Systems	French	2,5	X	X	X	X	X			X	X
2	1-2	Concept of Secured Systems	French	2,5	X	X	X		X				
2	1	Development of New Products and R&D Strategy	French	3					X	X	X	X	X
2	1	Enterprise Innovation and Management	French	2,5				X	X	X	X	X	X
2	1	Introduction to Modelization and Optimization	French	3	X	X	X	X	X	X	X		
2	1-2	Production Systems Modelization and Simulation	French	2	X	X	X	X	X				
2	1-2	Stochastic Model and Applications	French	2	X	X	X	X	X	X	X	X	X
2	1-2	Supply Chain Management	French	3	X			X		X	X	X	X
2	1-2	Uncertainties mngt for reliability optimization	French	3	X	X	X	X	X	X	X	X	X

		TUB											
YR	SEM	COURSE	LANG.	ECTS	AM	IM	SOSI	SCM	EEM	DMIE	IB	DBMI	F
2	1	3D Computer Vision	English	12	X	X							
2	1	Advanced Environmental Economics	English	6			X		X		X		
2	1	Climate Change and Geographical Economics	English	6			X		X		X		X
2	1	Competition Policy: Theory and Practice	English	6							X		
2	1	Digital Communities	English	6								X	
2	1	Innovation Economics	English	6						X			
2	1	Innovation Management & Entrepreneurship Basics	English	6						X		X	
2	1	Innovation Marketing	English	6									
2	1	Intellectual Property Management	English	6						X			
2	1	Mobile Interaction	English	6								X	
2	1	Network and Infrastructure Regulation	English	6					X				
2	1,2	PC-based Exercises using SAP-Software	English	6	X	X	X	X	X	X	X	X	X
2	1	Quality Assurance of Embedded Systems	English	6	X	X							
2	1	Renewable Energy Technology in Electric Networks	English	6					X				
2	1	Web Technologies	English	6								X	
2	1	Sustainable Innovation	English	6			X	X		X	X		
2	1	Sustainable Production	Ger/Eng	6	X	X	X	X					
2	1	Time Series Analysis	English	6				X					X
2	1	Adv Info Mngt 1 – Heterogen. & Distributed Info Sys	English	6				X					
2	1	Advanced Microeconomics	English	6									X
2	1	Microeconometrics	English	6									X

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Suggested study plans

SECOND YEAR, SECOND SEMESTER

YR	SEM	COURSE	LANG.	ECTS	AM	IM	SOSI	SCM	EEM	DMIE	IB	DBMI	F
		CS											
2	2	Advanced Project Management (Elective)	French	2,5	X				X	X	X	X	X
2	1-2	Concept Engineering	French	2,5		X	X	X		X		X	
2	1-2	Concept of Complex Systems	French	2,5					X	X	X	X	X
2	2	Stock management	French	2,5	X	X	X	X					
2	1-2	Production Systems Modelization and Simulation	French	2	X	X	X	X	X				
2	2	Durable Conception (Elective)	French	2,5		X	X	X		X		X	
2	1-2	Stochastic Model and Applications	French	2							X	X	X
2	1-2	Supply Chain Management	French	3	X			X			X		X
2	1-2	Concept of Secured Systems	French	3	X	X	X		X				
2	1-2	Uncertainties mngt for reliability optimization	French	2					X	X	X		X

YR	SEM	COURSE	LANG.	ECTS	AM	IM	SOSI	SCM	EEM	DMIE	IB	DBMI	F
		TUB											
2	2	Advanced Efficiency and Productivity Analysis	English	6	X	X	X	X	X	X	X		X
2	2	Business Research Methods	English	6						X	X		
2	1,2	Computer Vision	English	12	X	X	X	X	X			X	
2	2	Digital Image Processing	English	6								X	
2	2	Entrepreneurship Research	English	6						X			
2	2	Financial Crises and Coordination	English	6							X		X
2	2	InfMod II / Advanced Information Modeling	English	6	X	X	X	X	X			X	
2	2	Introduction to Financial Econometrics	English	6							X		X
2	2	Knowledge and Technology Transfer	English	6						X			
2	1,2	Machine Learning	English	9								X	
2	2	Multinational Corporations and Corporate Control	English	6	X	X	X	X	X	X	X		X
2	2	Multivariate Analysis/Business Statistics	English	6	X	X		X				X	
2	2	The Economics of Climate Change	Ger/Eng	6			X		X		X		X
2	2	Usability Engineering	English	6		X	X						

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