

# **DOUBLE DEGREE PROGRAMME**

AMU/AMSE Konstanz University

















### The first year will take place in Germany/Konstanz

TERM 1 - Courses	ECTS
Advanced Econometrics	10
Advanced Macroeconomics I	10
Advanced Microeconomics I	10

<b>TERM 2 - Courses</b> Four courses and one seminar from the following areas:	ECTS
Advanced Microeconomics II	6
Applied Time Series	8
Choose between:	
Computational Economics	10
International Monetary Economics	8
Political Economy	10
Economics of taxation	8
Risk Management	8
Labour market search	10

















#### The second year will take place in France/Marseille

The student may choose between one of the four tracks:

#### Track 1 - Empirical and theoretical economics

TERM 3 - Courses	ECTS
Common core - Advanced macroeconomics - Advanced microeconomics - Advanced econometrics	9
Economics of networks - Development economics - Economics of networks - Development economics	6
Introduction to research - Research questions	3
Elective teaching units (choose 1 among 2) - Political economy - Incentives theory  O Political economy Incentives theory	6
<ul> <li>Macroeconomic cycles - Dynamic macroeconomics</li> <li>Macroeconomic cycles</li> <li>Dynamic macroeconomics</li> </ul>	6
Elective teaching units (choose 1 among 2)  - Public choice - International trade  O International trade  Public choice	6
<ul> <li>Health economics - Environmental economics</li> <li>Health economics</li> <li>Environmental economics</li> </ul>	6
TERM 4 - Courses	ECTS
Research methodology - Research methodology I - Research methodology II	4
Research dissertation or end-of-study internship with report and defence	20
Elective teaching units (choose 1 among 2)  - Labor economics - Labor econometrics  O Labor economics  O Labor econometrics	6
<ul> <li>Advanced econometrics</li> <li>Automatic model selection methods</li> <li>Theoretical econometric</li> </ul>	6

















#### Track 2 - Economic policy analysis

TERM 3 - Courses	ECTS
Methodology	6
- Writing and oral communication training	
- Project management	
Decision-making support: quantitative methods	6
- Quantitative tools in economics	
- Public policies econometrics	
Contemporary economy issues	9
- Applied economics issues	
- Big data and public policies	
- Transitions and economic policies	
Elective teaching units (choose 3 among 6)	9
- Economics, finance and crises	3
<ul> <li>Economics, finance and crises</li> </ul>	
- Programming for Big Data (Python, SQL, noSQL, etc)	3
<ul> <li>Programming for Big Data (Python, SQL, noSQL, etc)</li> </ul>	
- Development economics	
<ul> <li>Development economics</li> </ul>	3
- Health economics	
<ul> <li>Health economics</li> </ul>	3
- Environmental economics	
<ul> <li>Environmental economics</li> </ul>	3
- Housing economics	
<ul> <li>Housing economics</li> </ul>	3
TERM 4 - Courses	ECTS
Knowledge of the professional environment	6
- Corporate strategy	
- Collaborating with public organizations	
End-of-study internship with report and defence	24

















#### Track 3 - Econometrics, Big Data, Statistics

TERM 3 - Courses	ECTS
Non-linear models: theory and applications	6
- Transition and duration models	
- Models for truncated and censored variables	
Advanced econometrics I: theory and applications	6
- Non parametric methods in econometrics	
- Multivariate and non-linear time series	
Advanced econometrics II: theory and applications	6
- Methodology of econometrics and statistical studies	
- Advanced econometrics	
Languages, softwares and tools for Big Data	6
- Programming for Big Data (Python, SQL, noSQL, etc)	
- Software for big data	
Applications for Big Data: elective teaching units (choose 2 among 4)	6
- Big data and public policies	
<ul> <li>Big data and public policies</li> </ul>	3
- Big data and quantitative marketing	
Big data and quantitative marketing	3
- Big data and finance	_
Big data and finance	3
- Big data: other applications	
<ul> <li>Big data: other applications</li> </ul>	3
TERM 4 - Courses	ECTS
Advanced methods in Big Data	9
- Automatic model selection methods	
- Predictive methods	
- Machine learning and statistical learning	
End-of-study internship with report and defence	21

















#### Track 4 - Quantitative finance and insurance

Theory of financial markets - Models of finance - Portfolio management  Economic and financial analyses - Corporate finance I - Economics of risk and insurance  Mathematics and statistics for finance - Stochastic finance - Econometrics of banking and finance  Quantitative methods in finance and insurance - Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance	TERM 3 - Courses	ECTS
- Portfolio management  Economic and financial analyses - Corporate finance I - Economics of risk and insurance  Mathematics and statistics for finance - Stochastic finance - Econometrics of banking and finance  Quantitative methods in finance and insurance - Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Pelective teaching units (choose 2 among 4) - Numerical methods for finance O Numerical methods for finance - Actuarial science II O Actuarial science II O Actuarial science II	·	6
Economic and financial analyses - Corporate finance I - Economics of risk and insurance  Mathematics and statistics for finance - Stochastic finance - Econometrics of banking and finance  Quantitative methods in finance and insurance - Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance - Actuarial science II  O Actuarial science II  A Course II  O Actuarial science II  O Actuarial science II  O Actuarial science II		
- Corporate finance I - Economics of risk and insurance  Mathematics and statistics for finance - Stochastic finance - Econometrics of banking and finance  Quantitative methods in finance and insurance - Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  ECTS  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance O Numerical methods for finance - Actuarial science II O Actuarial science II  O Actuarial science II	- Portfolio management	
- Economics of risk and insurance  Mathematics and statistics for finance - Stochastic finance - Econometrics of banking and finance  Quantitative methods in finance and insurance - Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance O Numerical methods for finance - Actuarial science II O Actuarial science II  O Actuarial science II	Economic and financial analyses	6
Mathematics and statistics for finance - Stochastic finance - Econometrics of banking and finance  Quantitative methods in finance and insurance - Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance  O Numerical methods for finance - Actuarial science II  Actuarial science II  Actuarial science II	·	
- Stochastic finance - Econometrics of banking and finance  Quantitative methods in finance and insurance - Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance	- Economics of risk and insurance	
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Quantitative methods in finance and insurance - Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance O Numerical methods for finance - Actuarial science II O Actuarial science II		
- Big data and finance - Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance O Numerical methods for finance - Actuarial science II O Actuarial science II	- Econometrics of banking and finance	
- Actuarial science I  Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance  O Numerical methods for finance - Actuarial science II O Actuarial science II	Quantitative methods in finance and insurance	6
Economics of finance - Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance  O Numerical methods for finance - Actuarial science II  Actuarial science II		
- Economics, finance and crises - Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4) - Numerical methods for finance  O Numerical methods for finance - Actuarial science II  Actuarial science II	- Actuarial science I	
- Innovation and finance  TERM 4 - Courses  End-of-study internship with report and defence  Elective teaching units (choose 2 among 4)  - Numerical methods for finance  O Numerical methods for finance  - Actuarial science II  Actuarial science II		6
TERM 4 - Courses  End-of-study internship with report and defence  24  Elective teaching units (choose 2 among 4)  - Numerical methods for finance  O Numerical methods for finance  - Actuarial science II  Actuarial science II	·	
End-of-study internship with report and defence 24  Elective teaching units (choose 2 among 4) 6  - Numerical methods for finance 3  O Numerical methods for finance - Actuarial science II 3  Actuarial science II	- Innovation and finance	
Elective teaching units (choose 2 among 4)  - Numerical methods for finance  O Numerical methods for finance  - Actuarial science II  Actuarial science II	TERM 4 - Courses	ECTS
- Numerical methods for finance  O Numerical methods for finance  - Actuarial science II  Actuarial science II	End-of-study internship with report and defence	24
<ul> <li>Numerical methods for finance</li> <li>Actuarial science II</li> <li>Actuarial science II</li> </ul>	· · · · · · · · · · · · · · · · · · ·	6
- Actuarial science II  O Actuarial science II		3
Actuarial science II		
		3
Corporato financo		
·	- Corporate finance	3
Corporate finance II	·	
- Credit risk 3		3
o Credit risk	o Credit risk	

















## **CONTACTS**

Please do not hesitate to contact us if you have any question or concern.

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