Module 1 – Credit Risk Environment
- Definition of credit risk
- The main quantities
- Basel II, Basel III reforms and stress testing
- Credit lifecycle
- IFRS 9
- Technological developments

Module 2 – Probability of Default (PD)
- Structural models: Merton's model
- Structural models: Moody's KMV and CreditMetrics
- Copulas and threshold models
- Mixture models
- Factor-copula models
- Generalized linear models and logistic regression
- Rating methodologies
- Low default portfolios
- The IRB standardised formulas
- PIT PD and forward looking models
- Implementation challenges

Module 3 – Loss Given Default (LGD)
- Key concepts in default handling: clients, default, collateral and exposure
- Non performing loans management
- Performing versus in-default LGD
- Statistical approaches
- A full case study (including GLMs)
- A crash course on survival analysis for LGD (and PD)
- LGD and survival analysis
- Implementation challenges

Module 4 – Credit Risk Frameworks
- Wrong-way risk: when PD and LGD move together
- Data in CRM
- Overview of credit risk model use
- Capital and loan loss provision
- Pricing of loans
- Machine learning in credit risk management
- Climate risk assessment
- Supervisory review of internal models

For more information about this online course visit our website: www.tudelft.nl/credit-risk-course