Analytical Customer Relationship Management (F000712)

Course size   (nominal values; actual values may depend on programme)

Credits	6.0	Study time	180 h	Contact hrs	45.0 h

Course offerings and teaching methods in academic year 2018-2019

A (semester 1)	English	seminar: practical PC room classes	40.0 h
		lecture	7.5 h

Lecturers in academic year 2018-2019

Van den Poel, Dirk	EB23	lecturer-in-charge

Offered in the following programmes in 2018-2019	crdts	offering
Master of Science in Business Engineering (main subject Data Analytics)	6	A
Master of Science in Business Engineering (main subject Finance)	6	A
Master of Science in Business Engineering (main subject Operations Management)	6	A
Master of Science in Economics	6	A
Exchange programme in Economics and Business Administration	6	A

Teaching languages

English

Keywords

analytical customer relationship management (aCRM), Marketing models, Quantitative methods in marketing, computer programming, SAS

Position of the course

Analytical CRM represents the last part of the supply chain (contact with final customers). This course introduces students to the analytical tools to carry out projects in aCRM.

Contents

Introduction to:
- analytical Customer Relationship Management (CRM), analysis of CRM:
  1. customer acquisition analysis,
  2. growing customers,
  3. retention analysis,
  4. recapturing 'lost' customers.
- Data Mining (with a strong emphasis on classification models to predict the four types of customer behavior mentioned in the previous bulletpoint)
- High-level data manipulation and modeling language (SAS Software: basic programming language)

Initial competences

Intermediate statistics & Econometrics

Final competences

Comprehension and knowledge to be acquired: being able to fully cover the domain of analytical customer relationship management (i.e., four components as discussed above); being able to correlate with neighbouring disciplines; being able to fully cover scientific research methodologies that are applied within the field of aCRM. Moreover, students will have practical working knowledge of the high-level programming language of SAS.
Skills to be applied: being able to carry out a thorough analysis of CRM; being able to

solve complex problems within the field of aCRM; being able to carry out scientific research within the field of aCRM; being able to develop new concepts and ideas within the field of aCRM; being able to communicate effectively, also with non-experts. Attitudes to be pursued: self-reliance; critical awareness; independence; integrity; objectivity; social skills; cautious and thorough decision making; structuring; willingness to assume responsibilities; creativity.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, seminar: coached exercises, seminar: practical PC room classes

Extra information on the teaching methods

Ex cathedra sessions as well as active class discussions of the different techniques and models with interactive exercises in the PC room.

Learning materials and price

- Manual of high-level data manipulation and modeling language
  Lora D. Delwiche, Susan J. Slaughter (2003), The Little SAS Book: A Primer, 3rd edition
- Own syllabus
- Scientific papers about analytical customer relationship management
Cost: 70 EUR

References

VAN DEN POEL Dirk, LARIVIÈRE Bart (2004), "Customer Attrition Analysis for Financial Services Using Proportional Hazard Models", European Journal of Operational Research, 157 (1), 196-217.
BUREZ Jonathan, VAN DEN POEL Dirk (2006), CRM at a Pay-TV Company: Using Analytical Models to Reduce Customer Attrition by Targeted Marketing for Subscription Services, Expert Systems with Applications, 32 (2), 277-288.

Course content-related study coaching

Numerous exercises are being solved during sessions. In addition, assignments (to be solved in teams) are handed out. Students receive coaching in the process of solving the assignments and feedback afterwards (collectively, by team and individually). After tests about the programming language SAS as well as aCRM, students will receive collective as well as individual feedback & coaching.

Evaluation methods

continuous assessment

Examination methods in case of periodic evaluation during the first examination period

Examination methods in case of periodic evaluation during the second examination period

Examination methods in case of permanent evaluation

Written examination

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible

Extra information on the examination methods

Written exam to determine to what extent the student mastered
- the principles of analytical CRM,
- the higher programming language SAS.

Calculation of the examination mark

Permanent evaluation (100%).