

V.12 Pricing of reinsurance contracts

module designation	Pricing of reinsurance contracts (Reinsurance Pricing)
abbreviation	M-PRV
course	<i>Pricing of reinsurance contracts</i>
Module manager	<i>Prof. Dr. Michael Fröhlich</i>
lecturer	<i>Prof. Dr. Michael Fröhlich</i>
Lehrform / SWS	<i>Seminar-based instruction with internship / 4 SWS</i>
workload in hours	<i>Attendance study: 60 h, Self-study: 90 h</i>
credit points	<i>5 ECTS</i>
recommended requirements	<i>B-AN1,2: Analysis 1,2; B-LA1,2: Lineare Algebra 1,2; B-WS1,2: Probability Theory and Statistics 1,2; B-SVM: Non-life actuarial mathematics</i>
Learning goals: Professional competence	<p><i>After successfully completing the module, students are able to</i></p> <ul style="list-style-type: none"> <i>• an insight into reinsurance terms and to have reinsurance structures (1),</i> <i>• to understand the mathematical mode of operation of proportional and non-proportional reinsurance contracts and to apply them to claims in the sense of risk sharing (3),</i> <i>• stochastic valuation/quotation methods of to know and apply reinsurance contracts (3),</i> <i>• apply the burning cost method (3),</i> <i>• apply the exposure approach (3),</i> <i>• Knowing and using Monte Carlo simulation (3),</i> <i>• to understand quotations of special segments and unusual contract constructions (2),</i> <i>• understand and implement the development of quotation models in Excel and VBA (3).</i>
Learning goals: personal competence	<i>See preliminary remarks of this module handbook</i>
contents	<ul style="list-style-type: none"> <i>• What is reinsurance? How does reinsurance work?</i> <i>• How proportional reinsurance contracts work</i> <i>• How non-proportional reinsurance works contracts</i> <i>• Quotation method burning costs for property and casualty business</i> <i>• Quotation method exposure approach for property and casualty business</i> <i>• Stop Loss Pricing und aggregate XLs</i> <i>• Frequency-Severity Analyse</i> <i>• Quotations for special segments and unusual contract constructions</i> <i>• Development of quotation models in Excel and VBA.</i>

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literature	<ul style="list-style-type: none">• <i>Pfeiffer, Chr.: Introduction to reinsurance, Gabler Wiesbaden</i>• <i>Liebwein, P.: Classic and modern forms of reinsurance, Karlsruhe VVW</i>
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