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| Title of course        | <b>Investment Appraisal</b>   |
| Responsible instructor | Prof Dr Peter Schuster  |
| Learning objectives    | <ul style="list-style-type: none"> <li>▪ Understand investment planning and investment decision-making</li> <li>▪ Identify relevant methods of investment appraisal methods assuming a perfect and an imperfect capital market</li> <li>▪ Compare the different investment appraisal methods particularly in regard to their underlying assumptions</li> <li>▪ Illustrate the application of multiple criteria methods for investment decision-making</li> <li>▪ Describe simultaneous decision-making models linking investment and finance decisions</li> <li>▪ Implement complex investment appraisal methods to real-world examples relating to simple or complex tax regulations of companies</li> <li>▪ Determine the optimum economic life, in different scenarios, by applying advanced investment appraisal methods</li> <li>▪ Demonstrate the use of investment appraisal methods at the example of investment replacement time decisions</li> <li>▪ Determine optimum investment timing strategies by applying investment appraisal methods</li> <li>▪ Solve complex decision problems of single projects under uncertainty</li> <li>▪ Solve complex decision problems of investment programmes under uncertainty</li> <li>▪ Examine and understand the corporate investment decision process and the limitations due to assumptions of various methods</li> <li>▪ Critically evaluate the suitability of methods currently in practical company use and develop an understanding of how decisions can be improved and how the decision can be adapted to imperfect capital market situations</li> </ul> |
| Course contents        | <ol style="list-style-type: none"> <li>1. The capital budgeting and investment decisions: Introduction</li> <li>2. Basic and advanced methods of investment appraisal             <ol style="list-style-type: none"> <li>2.1. Discounted cash flow methods                 <ol style="list-style-type: none"> <li>2.1.1. Net present-value method</li> <li>2.1.2. Annuity method</li> <li>2.1.3. Internal rate-of-return method</li> <li>2.1.4. Dynamic payback period method</li> </ol> </li> <li>2.2. Compounded cash flow methods                 <ol style="list-style-type: none"> <li>2.2.1. Compound value method</li> <li>2.2.2. Critical debt interest rate method</li> <li>2.2.3. Visualisation of financial implications (VoFI) method</li> </ol> </li> </ol> </li> <li>3. Applications of investment appraisal             <ol style="list-style-type: none"> <li>3.1. Income taxes and investment decisions</li> <li>3.2. The assessment of foreign direct investments</li> <li>3.3. Economic life and replacement time decisions</li> </ol> </li> <li>4. Multi-criteria methods and investment appraisal             <ol style="list-style-type: none"> <li>4.1. Utility value analysis</li> <li>4.2. Analytic hierarchy process (AHP)</li> <li>4.3. Multi-attribute utility theory (MAUT)</li> <li>4.4. PROMETHEE</li> </ol> </li> </ol>   |

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|   | <p>5. Simultaneous decision-making models</p> <p>5.1. Simultaneous investment and financing decisions</p> <p>5.2. Simultaneous investment and production decisions</p> <p>6. Methods and models that incorporate uncertainty</p> <p>6.1. Models for investment projects under uncertainty</p> <p>6.2. Models for investment programmes under uncertainty</p>   |
| Teaching methods                        | <ul style="list-style-type: none"> <li>▪ Lectures</li> <li>▪ Exercises</li> <li>▪ Hermeneutic discourses</li> <li>▪ Maieutic discourses</li> <li>▪ Discussion</li> <li>▪ Self-study</li> </ul>   |
| Prerequisites                           | There are no formal requirements.  |
| Suggested reading                       | <ul style="list-style-type: none"> <li>▪ Götze, U., Northcott, D., Schuster, P.: Investment Appraisal. Methods and Models, 2nd Ed., Springer, 2015</li> <li>▪ Schuster, P.: Management Accounting &amp; Management Control USB stick (latest version)</li> <li>▪ Schuster, P.: VoFI: A More Realistic Method for Investment Appraisal, in: Management Accounting Quarterly, Winter 2011, Vol. 12, No. 2, p. 24-34</li> <li>▪ Further references will be given during the classes.</li> </ul> |
| Applicability                           | <p>This course is in particular applicable to the following Master programmes: International Business and Economics (M.A.; "IBE"), Finance (M.Sc.).</p> <p>This course is also applicable to other business-oriented Master programmes offered by Schmalkalden University of Applied Sciences.</p>   |
| Workload                                | <p>Total workload: 240 hours, of them:</p> <ul style="list-style-type: none"> <li>▪ Lecture: 60</li> <li>▪ Self-study: 180, of them: <ul style="list-style-type: none"> <li>▪ Course preparation (in particular reading): 45</li> <li>▪ Follow-up: 45</li> <li>▪ Readings and exam preparation (including mid-term): 90</li> </ul> </li> </ul>   |
| ECTS credit points and weighting factor | 8 ECTS credit points; weighting factor: 8/120 (IBE) or 8/90 (Finance), respectively  |
| Basis of student evaluation             | <ul style="list-style-type: none"> <li>▪ Comprehensive written examination, 90 minutes (100%)</li> </ul>   |
| Time                                    | First academic year  |
| Frequency                               | Each academic year   |
| Duration                                | One semester   |
| Course type                             | Elective course  |
| Remarks                                 | Teaching language is English.  |