

Chapter 25. Not Just Numbers – Understanding Company Financial and Non-Financial Data for Sustainability

25.1. COURSE SUMMARY

Table 25–1

Audience and level of studies	Students (Master)	
Group size	26–50	
Course duration	14 weeks	
Credits	4 ECTS	
Workload	Presence: 48h Self-study: 104h	Total: 152h
Contents/primary topics	• Introduction to Financial and Environmental, Social and Governance (ESG) reporting • Financial statements interpretation, integrated reporting, integration of financial and non-financial information • Advanced analysis of financial and non-financial statements	
Main course objectives	• Provide a framework within which students can develop an understanding of the determinants and uses of financial, social and environmental reporting data • Equip students with the knowledge and skills to disclose and interpret financial and sustainability information • Familiarize students with the sustainability practices that help them to make responsible decisions and take a sustainable course of action to solve problems	
Main teaching approaches	• Active learning • Collaborative learning • Experiential learning	
Main teaching methods	• Group discussion • Case study • Sustainability-related research project	
Learning environment	Hybrid classroom (face-to-face and online learning)	

Link to Sustainable Development Goals	SDG 8 Decent Work and Economic Growth Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all SDG 9 Industry, Innovation and Infrastructure Build infrastructure, promote inclusive and sustainable industrialization and foster innovation
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Table 25–2

Impact assessment:	(None) Low/Medium/High	Explanation
1. Degree of student participation / activeness	High	Students are conducting their own work in a project. It allows them to identify complicated issues, get individual explanations from the teacher, and clearly understand the new material.
2. Degree of student collaboration / group work	High	Most of the course activities are in the form of teamwork where students are expected to work together towards a common goal. Students are also taking part in a team project during the whole semester.
3. Degree of student emotional involvement	High	Students are gaining first-hand experiences in a project and are discussing the emotional aspects of these experiences in class. While working on the projects, students focus on emotional aspects of learning, relating to values and attitudes.
4. Degree of inter-/trans-disciplinarity	High	Students are working in group projects where they have to take knowledge of several disciplines into consideration and combine it in order to create a new and holistic solution. Students use their knowledge of financial and non-financial accounting and reporting, business ethics and sustainable development issues. Moreover, people from different disciplines are involved.
5. Degree of student (self-) reflection	Medium	Students are working on a project about sustainability reporting and are discussing it in class. They are critically reflecting on their personal sustainability-related knowledge, experiences, assumptions, beliefs as well as values.
6. Degree of experience of real-life situations	High	Students gain a first-hand experience in a real project. In addition, students participate in excursions to sustainable companies.
7. Degree of nature-related experiences	(None)	

8. Degree of stakeholder integration	High	Students are doing a project titled "Financial and non-financial statements analysis". In this project, they are analysing financial and non-financial statements of public companies, identifying different stakeholders and collaborating directly with them, and conducting their conclusions concerning sustainability and financial reporting.
9. Degree of integration between theory and practice	High	Theory and practical elements concerning sustainability and finance issues interact intensively. In different sessions of the course, theory is provided which needs to be directly applied within a practical project.

25.2. COURSE INTRODUCTION

The course provides students with an understanding of the broad sustainability and accounting principles, concepts, and the role of financial and non-financial information in the decision-making process. According to Sustainable Development Goals Target 4.7 all students gain skills and knowledge needed to contribute to sustainability. This demands a transformative approach "...with change for sustainability as an explicit outcome in addition to subject knowledge" (Greig & Priddle, 2019, p. 1). The sustainability module is particularly valuable because it broadens the student's perspective (Wyness & Dalton, 2018). Moreover, learning is useful only if knowledge can be applied to real-world economic, ecological and social issues (Apostolou et al., 2019). The class will include a discussion of integrated reports of famous multinational companies and articles on related topics. Upon successful completion of this course, students should be able to prepare financial and non-financial statements, analyse sustainability and accounting information, and draw conclusions for sustainable decisions. The course is specifically interesting because of its interdisciplinary character. Furthermore, the teacher plays the role of a coordinator, and the provided material requires students to work independently and rely on their problem-solving skills.

25.3. LEARNING OBJECTIVES

Table 25–3

Learning objective dimension (UNESCO, 2017)	Learning objective	Competency referred to framework of Rieckmann (2018)
Cognitive	Ability to reflect on the key environmental and social challenges that occur in a variety of socio-economic and cultural contexts and understand their major causes and impacts	Systems thinking competency
	Ability to identify important environmental and social issues and major research concerning sustainable technology	Anticipatory competency
	Ability to prepare financial and non-financial statements	Systems thinking competency
	Ability to analyse sustainability and accounting information and interpret integrated reports	Systems thinking competency
Socio-emotional	Interpersonal skills and empathy	Collaboration competency
	Ability to convey information to others in a convincing way	Collaboration competency
	Ability to create an own vision for the future	Anticipatory competency
	Ability to critically examine views, norms and practices and reflect on personal perceptions, values and behaviour	Critical thinking competency
Behavioural	Ability to articulate the formal, technical, and theoretical attributes of the own work and the work of others	Anticipatory competency
	Ability to deal with risks and changes concerning financial and non-financial reporting disclosures	Anticipatory competency
	Ability to design and put sustainability-promoting actions into practice	Strategic competency
	Ability to handle group conflicts and enable a collaborative and participatory problem-solving process	Collaboration competency
	Ability to apply different problem-solving frameworks to complex sustainability reporting problems and create solutions that promote sustainable development and sustainability reporting – while integrating the above-mentioned competencies	Problem-solving competency

25.4. COURSE OUTLINE

Table 25–4

Structure		Session focus	Homework
Week 1	Session 1 (4h)	Introduction to the course and teaching methods	Getting acquainted with the course and methods used
Week 2	Session 2 (4h)	Scope and meaning of financial and sustainability reporting	Getting acquainted with reporting standards
Week 3	Session 3 (4h)	Financial statements	Preparing financial statements
Week 4	Session 4 (4h)	The statement of cash flows	Dividing into groups and choosing a company for the group project titled "Financial and non-financial statements analysis"
Week 5	Session 5 (4h)	Financial statement analysis	Reading the case study "Identify the industry – Analysis of financial statement data" (Rankine, 2014; see subchapter "Recommended Resources")
Week 6	Session 6 (4h)	Applied financial statement analysis. Case study: "Identify the industry – Analysis of financial statement data" (Rankine, 2014; see subchapter "Recommended Resources")	Working on the group project: "Financial and non-financial statements analysis", part 1 (see subchapter "Recommended Resources")
Week 7	Session 7 (4h)	Sustainability reporting process, external assurance	Solving exercises
Week 8	Session 8 (3h)	Excursion to a sustainable company	Working on the group project "Financial and non-financial statements analysis", part 2 (see subchapter "Recommended Resources")
Week 9	Session 9 (4h)	Integrated reporting	Solving exercises and reading the case study "Transaero: Turbulent times" (Senatorova et al., 2018; see subchapter "Recommended Resources")
Week 10	Session 10 (4h)	Advanced analysis of financial and non-financial statements. Case study: "Transaero: Turbulent times" (Senatorova et al., 2018; see subchapter "Recommended Resources")	Working on the group project: "Financial and non-financial statements analysis", part 3 (see subchapter "Recommended Resources")
Week 11	Session 11 (3h)	Excursion to a sustainable company	Writing a short essay

Structure		Session focus	Homework
Week 12	Session 12 (2h)	Group project, presentations	Solving exercise (see subchapter "Recommended Resources", Exercise 1)
Week 13	Session 13 (2h)	Group project, presentations	Solving exercises
Week 14	Session 14 (2h)	Review of the material covered in the course	Material covered in the course

25.5. TEACHING APPROACHES AND METHODS

Effective accounting and reporting teaching is challenging because it is strictly rule-dominated and mathematics-oriented, and teachers may be tempted to make the course boring for the students. Therefore, it is very important to motivate the students straight from the start by providing them with an understanding of the importance of sustainability for their future. Moreover, it is necessary to support the students' interest in the material and help them to comprehend that sustainability and reporting are related to very important and interesting issues: sustainability and financial information.

As mentioned in the course summary, the module combines different types of teaching approaches and methods. The main teaching approach is active learning, through which students are actively engaged in the learning process (Prince, 2004). Besides, collaborative and experiential learning are used throughout the course. The dominant teaching methods applied are group discussions, case studies and the conduct of a sustainability-related research project (for definitions of the mentioned approaches and methods see chapter 1 in the book). In addition, students participate in two field trips in the form of visiting sustainable companies.

In line with the dominant approaches, in-class work frequently consists of the following main parts:

- The teacher starts the classes by involving the students in the subject with a discussion of the material that was assigned as homework.
- The students do practical exercises including new material to best involve and understand the practical implementation of accounting and sustainability principles.
- The teacher provides lectures on the key theoretical aspects of the new topic.
- The students participate in creative group work aimed at searching possible solutions for difficult situations. This allows them to identify complicated issues, get individual coaching from the teacher, and grasp the new material.

The dominant approaches and methods are furthermore exemplified in the implementation of activities such as working on case studies (i.e. Rankine, 2014; Senatorova et al., 2018; see subchapter “Recommended Resources”) and conducting different group exercises including a group project. The group project is titled “Financial and non-financial statements analysis”. Teams of students choose multinational companies and conduct a detailed analysis of the company’s financial and non-financial statements (for more information see subchapter “Exercises”). The project work is carried out in stages throughout the course. An important part of the project is a competitor analysis that considers the specific features of each industry that the companies operate in. The results are defended in the form of a PowerPoint presentation and a written report. The student projects are of applied nature and are expected to deepen the professional knowledge of students within the fields of sustainable development, financial analysis, accounting and auditing. During the projects, students also gain outcomes related to teamwork, the formation of sustainable thinking, and communication skills. The project also motivates students to successfully apply theoretical concepts to real-world situations. As students perform complex analyses in their group projects “...by drawing on knowledge from several disciplines at the same time” and are “...concerned with the links and the transfer of knowledge, methods, concepts, and models from one discipline to another” (Greig & Priddle, 2019, p. 3), the projects facilitate the application of another learning approach, that was recommended in literature as being suitable and effective for sustainability teaching, namely interdisciplinary learning (Annan-Diab & Molinari, 2017; Evans, 2019). Interdisciplinarity is furthermore supported by the material of the course which the teacher develops based on concepts from finance, accounting, and sustainability (Bajada & Trayler, 2013).

One very important teaching issue in the course is bilateral feedback. The most important parts of the feedback are in-class discussions as well as emails and forums. To improve feedback, it makes sense to start every lecture in the interactive format to understand what aspects of the material students do not understand clearly and explain them in another way (see also above). In addition, it is essential to encourage students to contact the lecturer through email and forums as well as to communicate with the lecturer in person during office opening hours. As effective bilateral feedback should include explicit measures, students are given, from time to time, short quizzes to refresh their memory of the material covered during the previous classes and to provide feedback on their performance. Additionally, the quizzes permit the teacher to evaluate the effectiveness of teaching methods and the level of understandability of the material.

Overall, the teaching process should focus, to be effective, on the ability of students to understand the material, apply their knowledge in their careers and

for their personal development, and become more sustainable individuals. Successful learning depends in this course on some important factors that include students' engagement in learning, bilateral feedback, effective course content, and sustainability thinking. After completing the course, students should not only be able to analyse financial and non-financial information, but also apply their knowledge in their professional and personal development and change their own behaviour, thus becoming more sustainable individuals. The course thereby ultimately contributes to "...empowering and motivating learners to become active sustainability citizens who are capable of critical thinking and able to participate in shaping a sustainable future" and therefore the goals of education for sustainable development (UNESCO, 2017, p. 54).

25.6. EXERCISES

Exercise 1: Interpreting Sustainability Reports

Part of Course: Week 12.

Goal: To interpret sustainability reports.

Format: Group project. All students are to be divided into groups comprising of up to four people.

Instructions for the Project: Students are to analyse the sustainability report of a public company and answer the following questions:

- What are the key concepts, theories and issues covered?
- What are the top 10 indicators that show performance data?
- What are the key trends?
- What are the main conclusions?

Exercise 2: Group project "Financial and Non-Financial Statements Analysis"

Part of Course: Weeks 4–13.

Goal: To analyse financial and non-financial statements for sustainable decision making.

Format: Group project. All students are to be divided into groups comprising of up to four people.

Instructions for the Project: Students should choose a public company and obtain its most recent annual reports, non-financial statements and consolidated financial statements. Moreover, students need to choose two competitors. The analysis consists of calculations and presentations organized according to the following outline:

Part 1. Company History and Industry Situation

- Company history and main geographic area of activity
- Description of the company's principal products or services
- Description of the industry and its outlook
- Company's future plans and ESG strategy based on what the students learned from the reports and their other research

Part 2. Financial Statements

- Income statement: determine gross profit, income from operations, and net income for the last two years and comment on the increases or decreases in these amounts.
- Balance sheet (statement of financial position): determine the most important items for the last two years and comment on the increases or decreases in these amounts.
- Statement of cash flows: Indicate whether the company's cash flows from operations for the past two years are more or less than the net income. Indicate whether the company is expanding through investing activities. Identify the company's most important source of financing. Overall, has the cash increased or decreased for the past two years?
- Ratio analysis: for the past two years, calculate and discuss the ratios for the company and competitors. In the presentation, students should focus on the interrelationships of the ratios and the broad picture as to whether the company is improving in each category.

Part 3. Sustainability Reports and Conclusions

- Analysis of non-financial information about the company using recent sustainability reports, annual reports and the students' other research.
- Main conclusions and recommendations.

25.7. ASSESSMENT

The overall score is based on the work activity (WA), the project (P), and the written exam (WE) score with the following weights:

$$\text{Overall score} = 0,2 * \text{WA} + 0,4 * \text{P} + 0,4 * \text{WE}$$

Work activity during seminar hours is controlled with attendance records and scoring involvement in discussions and teamwork as well as the quality of exercise performance during seminars. Higher participation grades will be given

en for insightful comments or questions that relate to class material; minimal grades will be assigned for simple questions of clarification. Attendance in class is an important priority as it is not possible to understand and grasp the fundamentals being taught in later topics unless the earlier topics have been mastered. Projects will be checked in class with presentations. Prior to checking the project, the teacher reviews all working papers for completion. Submission deadlines are specified in the instructions of the group project. Written exam is a closed-book exam with a 10-step grading scale. To pass the course, students have to receive at least 20 points out of 50 in the final written examination and perform a group project.

25.8. PREREQUISITES

Prior knowledge required from the students:

- Basics of financial accounting and reporting
- Basics of sustainable development

Required instructors and their core competencies:

- Lecturer (competencies: financial and sustainability reporting)
- Industry expert (competencies: real-life business expertise)

Required tools:

- Online collaboration platforms: video communication (e.g. Zoom), education (e.g. Moodle) and document editing (e.g. Google docs)

25.9. RECOMMENDED RESOURCES

Atrill, P., & McLaney, E. (2019). *Accounting and finance for non-specialists* (11th ed.). Pearson Education.

Busco, C., Granà, F., & Izzo, M. F. (2018). *Sustainable development goals and integrated reporting* (1st ed.). Routledge.

Rankine, G. (2014). *Identify the industry—Analysis of financial statement data*. Ivey Publishing. <https://www.iveypublishing.ca/s/product/identify-the-industry-analysis-of-financial-statement-data/01t5c00000CwrGhAAJ>

Senatorova, E. A., Erenburg, G., & Strickland, R. A. (2018). *Transaero: Turbulent times*. Harvard Business Review. <https://store.hbr.org/product/transaero-turbulent-times/W18439>

25.10. GENERAL TIPS FOR TEACHERS

Conducting the collaborative exercises will provide the necessary tools to teach students about financial and sustainability reporting in the classroom. Additionally, using active, collaborative, and experiential learning and effective teaching methods (group discussions, case studies, and student projects) will help to achieve high-quality learning outcomes. To make the content of the course more effective, it is important to use practical examples, which help the students to better understand the sustainability and reporting thematic.

REFERENCES

- Annan-Diab, F., & Molinari, C. (2017). Interdisciplinarity: Practical approach to advancing education for sustainability and for the Sustainable Development Goals. *The International Journal of Management Education*, 15(2), 73–83. <https://doi.org/10.1016/j.ijme.2017.03.006>
- Apostolou, B., Dorminey, J. W., Hassell, J. M., & Hickey, A. (2019). Accounting education literature review (2018). *Journal of Accounting Education*, 47, 1–27.
- Bajada, C., & Trayler, R. (2013) Interdisciplinary business education: Curriculum through collaboration. *Education + Training*, 55(4/5), 385–402.
- Evans, T. L. (2019): Competencies and pedagogies for sustainability education: a roadmap for sustainability studies program development in colleges and universities, *Sustainability*, 11(19), 5526.
- Greig, A., & Priddle, J. (2019). Mapping students' development in response to sustainability education: A conceptual model. *Sustainability*, 11(16), 4324.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223–231.
- Rankine, G. (2014). *Identify the industry — Analysis of financial statement data*. Ivey Publishing. <https://www.iveypublishing.ca/s/product/identify-the-industry-analysis-of-financial-statement-data/01t5c00000CwrGhAAJ>.
- Rieckmann, M. (2018). Learning to transform the world: Key competencies in education for sustainable development. In A. Leicht, J. Heiss, & W. J. Byun (Eds.), *Issues and Trends in Education for Sustainable Development* (pp. 39–59). UNESCO Publishing.
- Senatorova, E. A., Erenburg, G., & Strickland, R. A. (2018). *Transaero: Turbulent times*. Harvard Business Review. <https://store.hbr.org/product/transaero-turbulent-times/W18439>.
- UNESCO. (2017). *Education for sustainable development goals: Learning objectives*. UNESCO Publishing.
- Wyness, L., & Dalton, F. (2018). The value of problem-based learning in learning for sustainability: Undergraduate accounting student perspectives. *Journal of Accounting Education*, 45, 1–19.

