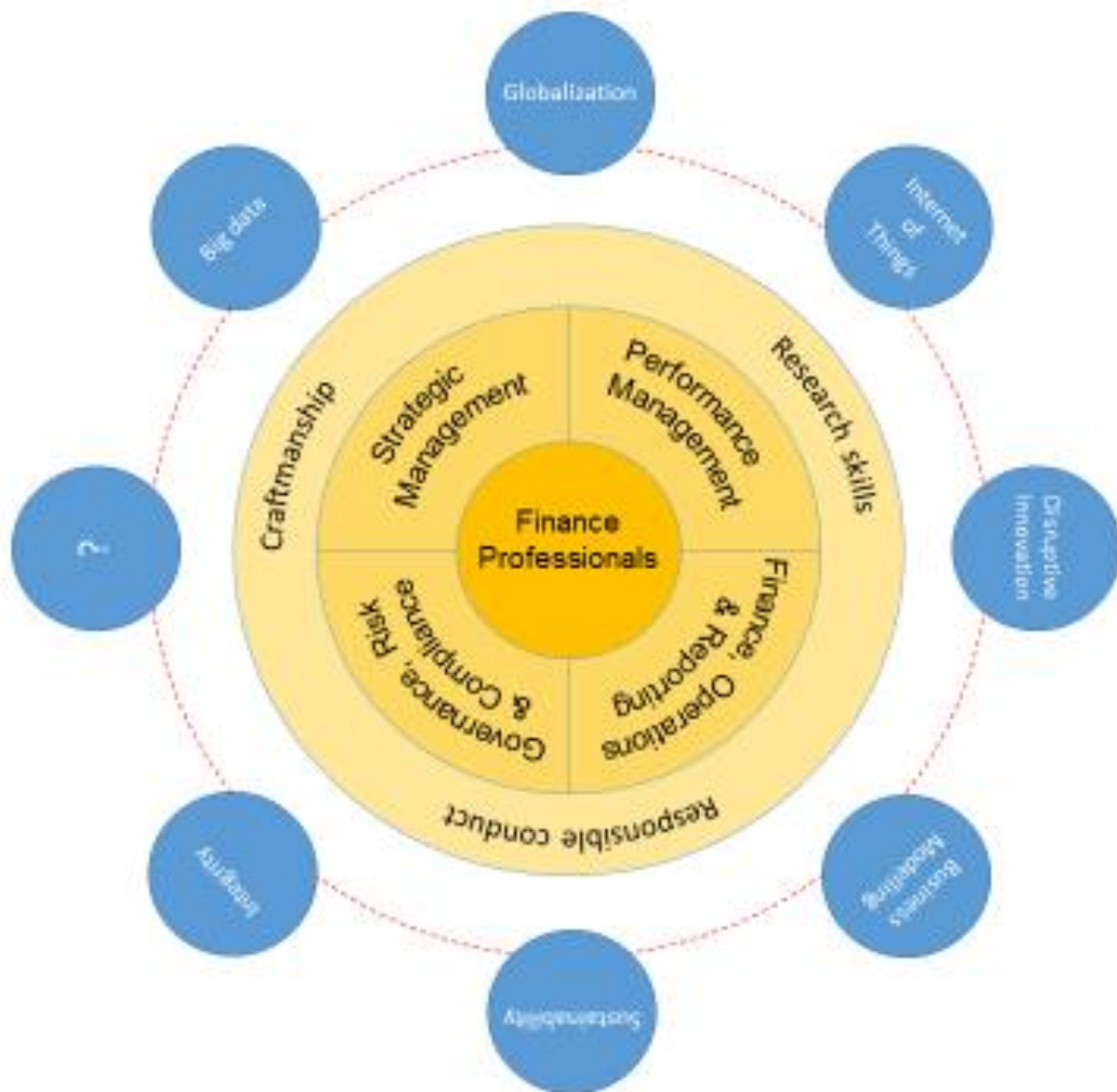


National Curriculum for the Finance & Control Program 2018 (LOPFC 2018)



Name	National Curriculum for the Finance & Control 2018
Date	14 th May 2018
Version	1.1
CROHO	80065 and 35520
EHEA levels	AD and BSc.
Authors	E.F. Kapteijn-Kruijswijk, J. Keating, P.A.M. de Keijzer, J. Oostdijk and R.W. Puyt.

Colophon

	Dutch title of the degree programmes	International title of the degree programmes
Name	AD Finance & Control	AD Finance & Control
ISAT	80065	
Name	Bachelor Finance & Control	Bachelor Finance & Control
ISAT	35520	
Name	Master Finance & Control	Master Finance & Control
ISAT	<i>to be requested</i>	<i>to be requested</i>

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Preface and rationale

Preface

At the time this study profile was drawn up, the Willems committee within the Netherlands Association of Universities of Applied Sciences (*Vereniging Hogescholen*) began discussions about the rationalisation of degree programmes within Dutch higher education in economics and management (*Hoger Economisch Onderwijs*, abbreviated: HEO). In its report, published in autumn 2015, the Willems committee recommended that the Finance & Control programme should remain an independent degree programme under the title of 'Finance & Control'. Partly with a view to international recognition, LOOFC has decided to use the title 'Finance & Control' for the programme. This updated national study profile (LOPFC 2016) will refer to the degree programme as the 'Finance & Control degree programme'.

LOOFC has decided to draw up an explanatory memorandum in support of the national profile for the Finance & Control degree programme. This document also includes a closer examination of the descriptions of the learning outcomes for the Master's programme.

Various contributors from a range of specialist and educational backgrounds have developed the final version of the LOPFC 2016 over the course of various discussion rounds. It was also submitted to the members of LOOFC and the professional field. We wish to thank Amber Kornet (Saxion), Olaf Leppink (Saxion), Elisabeth Osterloh (Amsterdam University of Applied Sciences), Anne Potters (Rotterdam University of Applied Sciences) and Nadya Da Rocha Nordine (Saxion) for their advice regarding content-related and educational aspects.

Rationale

In September 2014, the Netherlands Association of Registered Controllers (*Vereniging van Registercontrollers* or VRC) and the Netherlands Institute of Chartered Accountants (*Nederlandse Beroepsorganisatie van Accountants* or NBA) published a vision paper on the career of a finance professional for 2020. LOOFC has used the general model presented in this vision paper as the starting point for the national study profile (see cover page). The four key areas at the centre of the model on the cover page have been retained practically unchanged. The second layer is formed by the competencies defining the profession as described with the HEO standard. Developments impacting on the profession, both at present and in the future, are represented by means of the satellites. We have taken the liberty of leaving one of the spheres (the question mark) empty in order to represent the dynamics within society. There is no doubt that developments are already taking place that will have a bearing on the activities of finance professionals. At the time of writing, however, these had yet to be identified. The developments discussed by us are broadly in line with the vision paper.

The LOPFC 2016 before you contains an exploration of the viewpoints of relevant stakeholders, seen against the background of developments in the labour market and the profession. The learning outcomes¹ were described using level 5 and 6 Dublin Descriptors of the European Higher Education Area (EHEA). For this reason, the numbers in accordance with the Central Register of Higher Education programmes for the AD and Bachelor's degree were included on the cover page. In addition to a description of the Associate Degree (EHEA-5) and the Bachelor's degree (EHEA-6), LOOFC has also provided an outline of the Professional Master's degree (EHEA-7). In order to draw up the description of the level 7 learning outcomes, an exploratory discussion was held with the secretary of the VRC and the programme manager for the Master of Science in Controlling programme at Nyenrode. During these discussions, it became evident that, as far as knowledge is concerned, new professionals at Bachelor's and Master's level will have covered similar topics, methods and techniques during their studies. Although the Master's programme devotes greater attention to Strategic Management, Governance and Compliance, the difference between the Bachelor's and the Master's degree is not so much found in the four key areas as outlined above, but rather in a difference in the research skills, which are broadened as well as deepened.

The LOOFC board

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Introduction

Faculties are free to set their own curriculum. The members of LOOFC are of the opinion that the design of a local major should be based on the principle of ‘comply or explain’. The guidelines issued by the Netherlands Association of Universities of Applied Sciences have informed the minimum set of elements to be covered in a national study profile.

The aim of the 2016 F&C national study profile is to provide information to the following stakeholders:

1. (Prospective) students: what can students expect from degree programmes at Associate degree and Bachelor degree level (EHEA levels 5 and 6)?
2. The labour market (employers): what can employers expect from finance professionals with an Associate or Bachelor degree, in terms of their knowledge and the three competencies defining the profession as described in the HEO standard: research skills, professional expertise and responsible conduct (skills and professional attitude)?
3. The management and policymakers of (advanced) Finance & Control degree programmes: what minimum requirements must the degree programme meet and which substantive aspects offer scope to set their own policy?
4. Accreditation organisations (AACSB, EFMD, NVAO (Accreditation Organisation of the Netherlands and Flanders) and reviewing and evaluating authorities): which framework can be used to assess a degree programme?
5. The Sectoral Advisory Board for Higher Economic Education and the Netherlands Association of Universities of Applied Sciences.

LOOFC has decided to draw up an explanatory memorandum in support of the national profile for the Finance & Control degree programme. This document reports on the findings from research and lists the sources that were consulted (see www.loofc.nl). The explanatory memorandum also contains examples and illustrations that may serve as a source of inspiration for curriculum developers and lecturers when designing course programmes. For curriculum builders, a practical article¹ on the development of a sustainable national curriculum appeared in the December 2017 issue of *Onderwijs Innovatie*.

Reading guide

Chapter 1 describes the relationship between the Finance & Control degree programme and other economic studies in Dutch higher education in economics and management (the HEO domain). It also determines how the Finance & Control degree programme is positioned with regard to international business schools. Chapter 2 shows the national and international context for professions related to the Finance & Control degree programme. National and international developments having an impact on the professional field, as identified in part by our national Advisory Board, are discussed in Chapter 3. Finally, Chapter 4 discusses the heart of the study profiles, namely the learning outcomes at AD and Bachelor degree level for the Finance & Control degree programme.

Appendix 1 outlines the key developments since the publication of the 2013 Business Economics LOB BBA (LOB2013). Appendix 2 contains the HEO standard. Appendix 3 lists the members of the national Advisory Board. The members represent the working field of new finance professionals and were involved in the development of the study profiles.

¹ Toekomstbesteding landelijk opleidingsprofiel voor Finance (Puyt & Oostdijk, 2017), *Onderwijs Innovatie*, nummer 4, december 2017

1. The Finance & Control degree programme

This chapter describes the relationship between the Finance & Control degree programme and other economic studies in Dutch higher education in economics and management (the HEO domain). It also determines how the Finance & Control degree programme is positioned with regard to international business schools.

1.1 The core of the degree programme

The Finance & Control degree programme is rooted in the Business Economics discipline. Business Economics, a subsector within the economic sciences, forms the interface between business administration and general economic studies. Business economics as an academic discipline is focused on examining how decisions are made within organisations, given the needs and wishes of those organisations. The objective of this discipline is to facilitate the management of organisations, taking into account the various separate interests of the participants within the organisations and their environment. The discipline focuses on economic issues and carries out practical research in order to contribute to the decision-making process within organisations (see the 2013 LOB).

1.2 Positioning of the Finance & Control degree programme

Comparison of the Finance & Control degree programme on a national level

The Finance & Control degree programme is one of the three business studies within Dutch Higher Professional Business Education (HEAO). The degree programme is characterised by a long-standing tradition of preparing students for tasks that were deemed to form part of the finance function, such as book-keeping, performing calculations to be used as input for decision-making and preparing annual accounts. In its current form, the Finance & Control degree programme offers a broad education in which the expertise (including the key values) of finance professionals, at AD or Bachelor degree level, consists of the capture and analysis of (financial) data (information provision) and the setup and optimisation of processes aimed at managing organisations.

This focus on information provision and the setup and optimisation of processes aimed at managing organisations is what sets the Finance & Control degree programme apart from the Commercial Economics (aimed at commercial functions) and Business Administration (Management, Economics and Law) degree programmes. The objective of the latter degree programme is to provide students with the skills and tools to resolve general issues in the field of business administration and can therefore be said to act as a bridge. Over the years, there has been a significant expansion of the number of degree programmes within the higher education sector for economics and management (the HEO domain), with new degree programmes typically based on a specific profession or industry.

Within the field of economics, the Finance & Control degree programme is most closely related to vocational training programmes in Accountancy (AC), Tax Law and Economics (FRE) and Financial Services Management (FSM)². The key difference is that AC and FRE focus on the profession and approach issues in the field of business administration and tax law predominantly from the viewpoint of statutory regulations. The Finance & Control degree programme involves examining issues in the field of business administration from a wider range of perspectives and as a result, this degree programme offers a broader education compared to the two abovementioned programmes. Compared to the Finance & Control degree programme, FSM places greater emphasis on the role of advisors in the provision of financial services.

Comparison of the Finance & Control degree programme on an international level

From an international perspective, the Finance & Control degree programme is comparable to the curriculum of a business school. A business school typically forms part of a university offering *undergraduate* (bachelor), *graduate* (master) and *post-graduate* (doctoral) programmes. In addition to this, there are 'professional schools' offering degree programmes aimed at the professions of business administrator and finance professional.

² The Willems committee has proposed that the FSM and FRE degree programmes be combined to form a new Finance & Advice degree programme.

The HEO standard (see appendix 2) lists ten core disciplines that are represented to a greater or a lesser extent in all degree programmes in economics. The difference between the degree programmes is defined in terms of the extent to which each of the ten core disciplines is covered. When learning outcomes 2 and 4 were formulated (see Chapter 4), it was observed that the list of ten core disciplines is incomplete.

The AACSB (Association to Advance Collegiate Schools of Business) is a recognised accreditation body for internationally recognised business schools and issues Business Standards. As such, it also sets the benchmark for the academic community. A special feature of business schools is that many run an accounting programme, which is subject to a more specific accreditation scheme. An analysis of the VRC general model and the abovementioned business and accounting standards shows that the Finance & Control degree programme is not fully reflected in the HEO core disciplines. Further investigation into the abovementioned 2013 Business and Accounting Standards, 2016 version, reveals that this standard has included the Internal Control core discipline in the list of subjects. The Internal Control discipline describes a large number of elements that are relevant to learning outcomes 2 and 4 referred to above. LOOFC has decided to expand the list of ten core disciplines in the HEO standard by adding the Internal Control discipline to the list.

The following six core disciplines are deemed essential for the Finance & Control degree programme:

- *Accounting*
- *Finance*
- *Management Information Systems*
- *Strategic Management*
- *Operations Management*
- *Internal control (addition based on the AACSB standards)*

In addition, finance professionals have received training in the five remaining core disciplines according to the HEO standard:

- *Economics*
- *Organisational Behaviour*
- *Quantitative Techniques*
- *Marketing*
- *Business Law and Ethics*

2. The professional field for the Finance & Control degree programme

This chapter illustrates the national and international context for professions related to the Finance & Control degree programme.

A wide range of professions is open to graduates from the Finance & Control degree programme. Examples of professional roles available to finance professionals cited by VRC and NBA, whether at AD, Bachelor, Master or post-Master degree level, include those of finance director, chief financial officer, controller, Finance & Control manager, management accountant, business analyst and Governance, Risk & Compliance manager. Finance professionals qualified in the discipline of business administration (EHEA levels 5, 6 and 7) have a wide range of career options³. This is also evident from a question in the HBO-Monitor, which relates to the profession carried out by students after their studies. In this online survey, which is conducted every year by The Netherlands Association of Universities of Applied Sciences, alumni will answer this and other questions a year and a half after completing their studies.

As far as the descriptions of the professions are concerned, LOOFC has decided to follow international job classification systems (databases). This approach may create the impression that the final outcome as shown in Table 1 does not always reflect the situation in the Netherlands. The chosen method has the advantage that the descriptions of the professions and the level are based on international standards.

The following sources were consulted with regard to the descriptions of the professions:

- 2010 SOC (Standard Occupational Classification)
- ISCO-08 (2008 International Classification of Occupations)
- ISCO2008BRC2014 (Research Centre for Education and the Labour Market (ROA) at Maastricht University and Statistics Netherlands)

Descriptions of the levels have been established in line with ISCED-97 (of the European Commission). The investigation carried out using the databases listed above has resulted in Tables 1 and 2, which provide descriptions of the professions and the levels. Table 1 establishes a link between ISCO-08 and O*Net Job Zones (for information regarding O*Net Zones, please see the explanatory memorandum). Table 2 establishes a link between ISCED-97, EHEA and the professional level (O*Net).

ISCO-08	2010 SOC title (2010SOC-ISCO-08 walkthrough)	AD (jobzone 3)	BSc. (jobzone 4)	MSc. (jobzone 5)
1219	Administrative Service Managers	X		
3313	Bookkeeping, Accounting, and Auditing Clerks	X		
4110	Exec. Secretaries and Exec. Administrative Assistants	X		
1211	Financial Managers, Branch or Department		X	
1213	Compliance Managers		X	
1420	General and Operations Managers		X	
2411	Accountants		X	
2411	Auditors		X	
2411	Budget Analysts		X	
2413	Financial Analysts		X	
2421	Management Analysts		X	
2519	Business Intelligence Analysts		X	
3339	Business Continuity Planners		X	
3339	Financial Quantitative Analysts		X	
3339	Fraud Examiners, Investigators and Analysts		X	
3339	Cost Estimators		X	
3339	Risk Management Specialists		X	
3339	Investment Underwriters		X	
1211	Treasurers and Controllers			X
2120	Operations Research Analysts			X

Table 1 Overview of professions for finance professionals by level

³ LOOFC has opted to include professions at Master degree level here, too. This means that this list will also be able to serve as input for the level 7 learning outcomes that are still to be drawn up.

		Job Zone 2	Job Zone 3	Job Zone 4	Job Zone 5
EHEA	Degree				
4	Senior secondary vocational education and training (MBO)	X			
5	AD		X		
6	BSc.			X	
7	MSc.				X

Table 2 Link between the educational and professional levels

3. Significant trends and developments in the professional field ⁴

National and international developments having an impact on the professional field, as identified in part by our national Advisory Board, are discussed below.

Social, technological, political and economic developments will influence the nature of the duties undertaken by finance professionals. Such developments also require the application of elements of the competencies defining the profession, as described in the HEO standard. For each development that has been identified, it is indicated what impact the development is expected to have on the performance of the finance function (whether in terms of the content or the elements defining the profession).

As a result of the trends and developments described below, finance professionals are required to have a different skill set compared to before. Although knowledge continues to be a key element, the expectation is that rapid changes in society, technology and the economy will create a need for proactive, future-oriented finance professionals with the ability to perform comprehensive analyses and contribute ideas to, and provide input for, business cases whilst maintaining a critical attitude.

The key developments that have been identified, and which have been represented in the general model in the form of satellites surrounding the key areas and the competencies defining the profession, are as follows:

- Globalisation
- Growing regulatory burden
- Disruptive innovation
- Business modelling
- Sustainability
- Integrity
- Big Data
- ?

Globalisation

Production processes increasingly take the form of lengthy chains extending beyond national borders. Organisations are progressively becoming interlinked with foreign organisations and company divisions located abroad. It is unclear to what extent rapid means of communication and increasingly high levels of training outside of the traditional group of developed countries will affect the importance of location. Indeed, the availability of rapid means of communications and a highly skilled workforce increases the attractiveness of time and location-independent ways of working and in turn, the attractiveness of outsourcing. However, the opposite (clustering) may also apply, with the importance of location increasing. Globalisation opens up opportunities for businesses, as a result of which finance professionals will increasingly be involved in the development of business cases (by mapping out risks and supplying and evaluating financial data). Globalisation is creating a demand for finance professionals who, more so than in the past, are aware of differences between cultures and the characteristics of international dynamics, and are able to communicate across cultures.

Growing regulatory burden

The credit crunch led to an outcry for transparency and accountability. As a result of this development, additional laws and regulations were brought in to help organisations guard against misconduct. Finance professionals are expected to monitor compliance within organisations. In addition, they are expected to have an understanding of the principles of corporate governance and to apply these. Their field of activity is expanded with new tasks such as the development of codes of conduct, the promotion of in-house codes and the performance of audits, including compliance audits.

⁴ Please refer to the explanatory memorandum for details of the relevant trends and developments described in this chapter.

Disruptive innovation

Rapid developments in technology make 'tried-and-tested' products and services obsolete and new forms of collaboration and business models are created. The emergence of those new products and services gives rise to disruptive innovations, as a result of which the life-cycle of products and services becomes ever shorter. This results in a demand for finance professionals who are able to translate external developments to their own environment.

The influence of digitisation on work processes is continually increasing. An example of this is the Internet of Things, in which remote-controlled devices are connected via the Internet. Traditional tasks of finance professionals are disappearing caused by technological developments such as automations and digitisation. Examples of this include the fully automated handling of core processes within companies in the form of P2P (Procure to Pay) and O2C (Order to Cash). Previously, these core processes were carried out by finance professionals as an important part of their work duties. The consequence is that within Finance too, roles will rapidly disappear and the nature of the duties performed by finance professionals will shift significantly towards the design and setup of processes, the analysis, management and protection of information flows, and the analysis of the data obtained.

Disruptive innovation affects the 'lifespan' of roles. Finance professionals will also be changing roles more frequently and more rapidly, which will require them to show flexibility and willingness to keep developing their skills.

Business modelling

Developments in communication technology create opportunities for new forms of collaboration (take as an example the world's largest taxi company that does not in fact own one single taxi). In addition, new technologies and social views give rise to new revenue models (based on the concept of a circular economy, amongst other things). The examples above serve to illustrate that existing products and services are offered in new ways. New products and services are developed on top of this. The expectation is that organisations will increasingly have to move with market conditions that require a flexible organisational structure. An example of a response to changing conditions is the desire to cooperate within the chain in a way that enables parties to make use of one another's systems. XBRL illustrates this. Questions arising as a result of new developments and that will require the involvement of finance professionals include:

- how to best serve the customer (within the chain)
- what requirements to set with regard to the suppliers
- how to protect one's own systems
- how to monitor and set boundaries within collaborations (or: how to select partners and establish remotely that work is being carried out in accordance with the requirements that have been set)

Sustainability

Under pressure from social developments, organisations are increasingly being held responsible for outcomes from the chain as a whole, including any negative external effects such as impacts on the environment. Also within organisations themselves, there is increasing attention for environmental sustainability, society and governance as part of the business strategy and business operations (Corporate Social Responsibility). The trend towards sustainability (under the broader topic of Corporate Social Responsibility) influences the manner in which decisions are reached. This is evident, for example, from the inclusion of social and environmental costs when compiling a business case. The performance of risk analyses is another contribution that will be requested from finance professionals.

The concept of value creation will in all likelihood be redefined, as a result of which new financial indicators will need to be developed. The focus on sustainability also has an impact on the content and format of reports (integrated reporting). Apart from new knowledge to be developed, the focus on sustainability will require finance professionals to have an open attitude (capacity for empathy) with regard to external developments and sensitivities.

Integrity

Financial crises have been a regular feature of the 21st century, as a result of irresponsible behaviour of leaders within multinationals (with the financial accounting scandals within Enron being an international tipping point) or an industry as a whole (the 2008 credit crunch). These scandals have significantly eroded trust in finance professionals and accountants in particular. This loss of trust in finance professionals has led to a sharp rise in legislation and regulations (see also the explanation for Growing regulatory burden). It remains to be seen to what extent the introduction of rules can address this. Soft controls in the form of setting the right example would appear to be just as effective. Discussions around the decreasing confidence in the behaviour of finance professionals did not end with accountants. More so than in the past, finance professionals should be expected to have the ability to counter misconduct within organisations from the viewpoint of responsible conduct and the courage to denounce this. They must demonstrate ethical and responsible conduct.

Big Data

Technology and digitisation offer organisations new possibilities for decision-making. This results in new tasks for finance professionals such as processing and interpreting data and can even lead to new professions. Also the protection of these data poses a new challenge for finance professionals.

?

One of the satellites in the diagram has deliberately been filled in with a question mark. After all, the environment in which finance professionals operate is in a state of continuous change. There is no doubt that organisations are already feeling the impact of developments that have yet to be identified as a trend. Professionals are aware that the playing field is changing all the time. The question mark indicates that professionals must maintain an open attitude towards the external environment in order to identify new developments and establish the extent to which such developments are relevant to the organisation or the professional's own ways of working. A consequence could be that the business model or the setup of the processes need to be revised.

4. Learning outcomes for the Finance & Control degree programme (AD and Bachelor)

This chapter discusses the heart of the study profiles, namely the learning outcomes at AD and Bachelor degree level for the Finance & Control degree programme.

In September 2014, the Netherlands Association of Registered Controllers (*Vereniging van Registercontrollers* or VRC) and the Netherlands Institute of Chartered Accountants (*Nederlandse Beroepsorganisatie van Accountants* or NBA) published a vision paper on the career of finance professionals for 2020. LOOFC has taken this vision paper as the starting point when formulating the learning outcomes.

The general model contains the following subject matter-related key areas:

- Strategic Management
- Performance Management
- Governance, Risk & Compliance
- Finance, Operations & Reporting

These four key areas form the basis for describing the seven learning outcomes (from AD to Master's degree level). Each core area is addressed at each level of the Finance & Control training column, but it is important to note that there are differences in emphasis:

- AD: emphasis on Finance, Operations and Reporting
- Bachelor: emphasis on Finance, Operations, Reporting, Performance Management and Risk Management
- Professional Master: command of all topics, with emphasis on Strategic Management, Governance and Compliance

The second layer of the model consists of the three competencies defining the profession, as described with the HEO standard. The general model describes seven trends, placed in spheres surrounding the core of the model. A description of those trends and developments is provided in Chapter 3.

A visual representation of the Finance & Control training column:

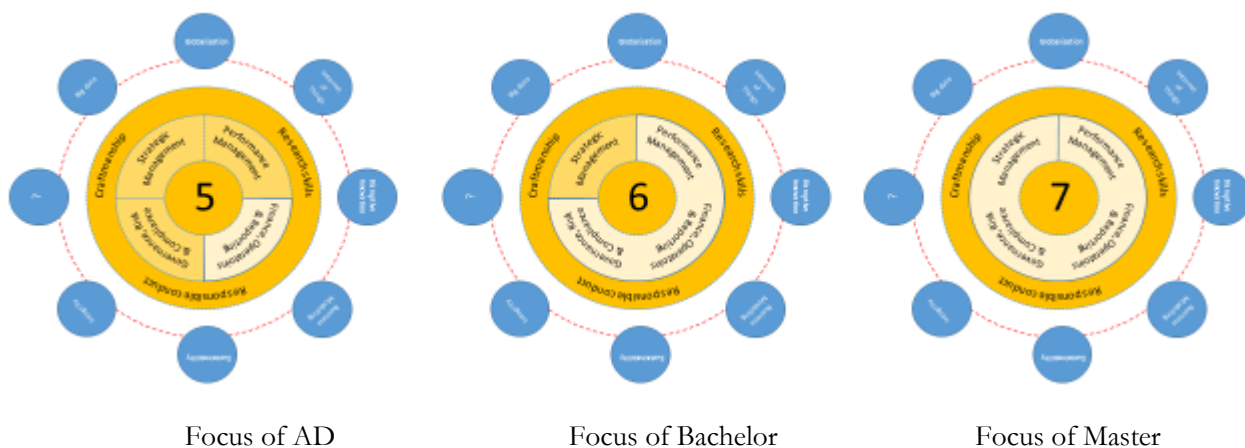


Figure 1 Differences of emphasis within the F&C training column.

Learning outcomes of the Finance & Control degree programme at AD and Bachelor's degree level

Table 3 outlines the learning outcomes for the Finance & Control degree programme at levels 5 (AD) and 6 (Bachelor). Taken all together, these learning outcomes cover the required theoretical basis as well as the competencies defining the profession, as described in the HEO standard, namely research skills, professional expertise and responsible conduct. The explanatory memorandum describes the learning outcomes in greater detail by giving examples of the required knowledge components and the professional tasks and results.

AD level	Bachelor level
Strategic Management: 1. Inform (line) management of developments in the external environment which are important for creating solutions in an organisation.	Strategic Management: 1. Facilitate insight in the external environment of an organisation and advise (line) management with the aim of making the correct management decisions for an organisation.
Performance management: 2. Compile and analyse ad hoc and periodic reports for the purpose of management control and accountability. 3. Use applicable methods for analysis, aimed at making the correct management decisions for an organisation.	Performance management: 2. Contribute to the design of the management control system aimed at monitoring performance and steering an organisation towards its (strategic) goals. 3. Select applicable methods for analysis aimed at making the right management decisions for an organisation.
Governance, Risk, Compliance: 4. Recognise operational risk that may influence information systems and business processes taking into account law and legislation.	Governance, Risk, Compliance: 4. Give advice about the design of information systems and business processes of an organisation aimed at managing risk.
Finance, Operations and Reporting: 5. Solve (frequently occurring) financial issues at an operational level. 6. Suggest relevant solutions aimed at optimising business processes. 7. Compile and review external reports taking into account law and legislation.	Finance, Operations and Reporting: 5. Give advice about financial issues, taking into account fiscal aspects and financial risks. 6. Give advice about the optimal design of information systems and business processes aimed at the effectiveness and efficiency of an organisation. 7. Compile and analyse external reports, taking into account law and legislation.

Table 3 F&C learning outcomes per qualification level

LOOFC has adopted the following definitions for the three competencies defining the profession, as described in the HEO standard:

Research skills

Finance professionals have the ability to analyse practical issues within organisations in a critical manner, in order to translate them into a specific knowledge requirement and respond to this requirement in the form of practical, useful advice or designs (for example products, processes or models) aimed at decisions that result in the improvement or renewal of practices.

Finance professionals are able to achieve this independently by applying the best available information⁵ in a systematic manner, assessing the usability and relevance of the information and using it to formulate advice and/or develop designs.

He or she will proceed in a transparent manner, whilst critically examining the reliability and relevance of such information and observing the rules applicable to the performance of practical research.

Professional expertise

Finance professionals are able to give advice. Amongst other things, this implies that they possess good written and verbal communication skills, including cross-cultural skills. Finance professionals are agile as a result of their ability to reflect on their own actions and their personal learning, which enables them to adjust their approach. They demonstrate sensitivity towards the organisation and the environment. They also possess good social skills, such as the ability to collaborate effectively by building interpersonal relationships in diverse, multicultural work environments.

⁵ Existing (scientific) insights, facts, data and features of the organisation, the values and standards of stakeholders, and the opinions of experienced professionals.

Finance professionals have an entrepreneurial spirit, they take initiative and are focused on results. They approach their work in a conscientious, structured and methodical manner. They will make clear agreements, keep to these and hold others accountable.

Responsible conduct

Finance professionals will show due care and attention in their actions. They will ensure that the management of an organisation is informed in a timely and adequate manner. They demonstrate awareness of the social context in which they carry out their financial role and will stand firm when dealing with ethical dilemmas that could play a role in the resolution of financial issues.

Appendix 1 Key developments since the 2013 national study profile

Developments	Effect(s)
Wet accreditatie op maat [Customized accreditation] (Ministerie van Onderwijs, Cultuur en Wetenschap, 2018)	Gain more trust in the educational institutions and lessen the administrative burden of an accreditation process.
Restructuring of the HEO sector (expected in 2018)	Rationalisation of the programme numbers for the HEO sector in the Central Register of Higher Education programmes Broadening of Bachelor degree programmes (expected). New ISAT codes for programmes with a new name (conversion per September 2018).
Wet invoering associate degree opleiding (Ministerie van Onderwijs, Cultuur en Wetenschap, 2017)	The associate degree becomes a separate programme – apart from a hbo-bacheloropleiding – and gains an independent status within the educational system.
Strategische agenda hoger onderwijs en onderzoek: de waarde(n) van weten [Strategic agenda for higher education and research: the value(s) of knowing] (Ministerie van Onderwijs, Cultuur en Wetenschap, 2015)	Reinforcement within the higher education sector of the connections between teaching practice, research and innovation in professional practice (OECD, 2014); (Onderwijsraad, 2014)
Yerevan Communiqué (European Ministers of Education, 2015)	Content of the universities of applied sciences standard expanded (HBO Raad, 2009)
Wet versterking kwaliteitswaarborgen hoger onderwijs [Quality Assurance in Higher Education (Further Measures) Act] (Ministerie van Onderwijs, Cultuur en Wetenschap, 2014)	Publication of new assessment frameworks for accreditation (NVAO, 2014) (NVAO, 2017) Introduction of cluster-based accreditation (NVAO, 2015); (NVAO, 2015) Collaboration agreement NVAO, AACSB (NVAO and AACSB, 2015) and the German Akkreditierungsrat (NVAO, 2015)
Wet kwaliteit in verscheidenheid [Higher Education (Quality in Diversity) Act] (Ministerie van Onderwijs, Cultuur en Wetenschap, 2013)	Differentiation in the degree programmes on offer (position of Associate Degrees, three-year track for students with a pre-university education certificate, harmonisation of titles at EHEA level) Tightening of educational entry requirements (for pre-university education, senior general secondary education and senior secondary vocational education) BBA standard (HBO Raad, 2012) replaced by the HEO standard and review of the final levels for BBA core subjects (Vereniging Hogescholen, 2014)
Wendbaar in een duurzame economie [Agile in a sustainable economy], HEO sector analysis (Vereniging Hogescholen, 2014)	Content of the universities of applied sciences standard expanded (HBO Raad, 2009)
Beoordelen is Mensenwerk [Professional judgment is a social practice] (Vereniging Hogescholen, 2014)	Expansion on the hbo standard (HBO Raad, 2009) with a vision on research skills. Introduction of a 12 points examination protocol. Introduction of a portfolio with products and achievements for achieving the learning outcomes

Table 4 Key developments since the 2013 national study profile

Appendix 2 HEO Standard

HEO standard

In the agreed HEO standard, the Universities of Applied Sciences have set down a jointly developed standard applicable to all their Bachelor degree programmes⁶. The implication of the universities of applied sciences standard is that departments must ensure that students, from a national as well as an international perspective:

- acquire a sound theoretical basis
- acquire the research skills that enable them to contribute to craftsmanship
- possess sufficient professional expertise
- develop the appropriate professional ethics and social orientation for a responsible professional

Sound theoretical basis

A newly graduated student with a higher degree in economics and management will possess basic theoretical knowledge in a number of core subjects that are relevant for (international) business management and for developing and innovating processes in the private as well as the public sector. The level at which a core subject is taught and covered in a specific degree programme in economics and management will depend on the importance accorded to the topic by the professional field associated with the degree programme.

These core disciplines are as follows⁷:

- accounting
- business law and ethics
- economics
- finance
- management information systems
- marketing
- operations management
- organisational behaviour
- quantitative techniques
- strategic management

Research skills

A newly graduated student with a Bachelor in economics and management will possess the research skills to develop product, service and process innovations (for the purpose of commercialisation) for the private as well as the public sector, by means of reflection and evidence-based practice. To this end, a student with a higher degree in economics and management will have acquired knowledge and experience of methods and techniques in (practical) research during his or her studies. A student with a higher degree in economics and management is also able to reflect on this. During the graduation stage of the degree programme, he or she will have demonstrated the ability to apply these research skills in specific professional and practical situations.

Professional expertise

A newly graduated student with a higher degree in economics and management will have developed into a skilled member of the profession. He or she:

- has an innovative and enterprising mindset
- possesses good advisory skills
- possesses good written and verbal communication skills
- is able to take differences between (international) cultures into account
- is focused on (interdisciplinary) cooperation
- will act as a sounding board inside as well as outside of the organisation where he or she is employed

⁶ In 2009 - see <http://www.hbo-raad.nl/hbo-raad/kwaliteitsagenda/509>.

⁷ These are in line with the core topics of the Bachelor of Business programme described in the Wikipedia article on the international Bachelor of Business (February 2011).

- continually works on his or her professional development (personal leadership) and contributes to the development of his or her profession in a broad sense

Responsible conduct

A newly graduated student with a higher degree in economics and management will be aware of the social context of the knowledge and skills gained during his or her studies. He or she will be aware that ethical conduct is and must be part of his or her professional expertise. Corporate social responsibility, business ethics and sustainability have featured as topics of debate in the degree programme.

Appendix 3 National Advisory Board

	Rabobank Netherlands, Directorate for Enterprise Management Jeroen de Leeuw, Chief Executive Officer, Enterprise Management unit
	Nyenrode Business Universiteit <i>Prof</i> Jan M. Bots: Professor of Controlling at Nyenrode Business Universiteit
	ROC Leiden Rengert de Gier RA, Finance Planning & Control manager
	NBCUniversal Bob Kurpershoek, Director Global Credit and Collections
	Municipality of The Hague, Urban Development department Jaap Regeer, business sector controller for Tax Matters at the Public Affairs department
	BAS consultancy Richard Scharink, CEO
	Blauwe Banaan B.V. Bert van den Hurk, owner of Blauwe Banaan BV and Dutchie Global, deputy Transition Manager for PC&K at the Municipality of Amsterdam
	NIVE Thijs Buddingh, Product Manager
	De Nederlandsche Bank Jos Westerweele, Project Manager
	Farm Frites Eric van Steekelenburg, COO and CFO Europe

Table 5 Members representing the professional field on the Advisory Board





	Piet de Keijzer: Chair (Avans Breda)
	Eveline Kapteijn-Kruijswijk: Secretary and Treasurer (The Hague University of Applied Sciences)
	Sybren Louwsma: Member (Rotterdam University of Applied Sciences)
	Richard Puyt: Member (Amsterdam University of Applied Sciences and LOOFC board member)

Table 6 LOOFC members on the Advisory Board

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