



Module catalogue Bachelor of Science

Zentralbankwesen/Central Banking degree
programme

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**Hochschule der
Deutschen Bundesbank**
Schloss Hachenburg

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1 Degree programme concept

Ever since it was founded in 1980, the educational concept of the Deutsche Bundesbank University of Applied Sciences (hereinafter “University”) has offered three things that **set it apart**:

- *orientation to the Bundesbank* (→ focus on the Bundesbank’s core business areas);
- *dual studies* (→ dovetailing of theoretical studies and practical experience);
- *dual qualification* (→ students obtain a university degree and simultaneously qualify for a career in the Upper Intermediate Service at the Bundesbank).

The Bachelor’s degree programme essentially follows these guiding principles, but places even greater emphasis on the role of the Bundesbank in the Eurosystem and on providing students with methodological expertise rather than just transferring knowledge. In addition, students are offered **options** for shaping their course of study, meaning that although they gain an overview of all core business areas of a central bank, they can also acquire an in-depth understanding of certain business areas and the key methods in use there.

The degree programme culminates in a **Bachelor of Science** degree, as **quantitative business administration methods** form a common thread throughout the programme, representing roughly half of the curriculum. The bilingual title of the degree programme (**Zentralbankwesen/Central Banking**) reflects the fact that the curriculum is largely international in nature due to the Bundesbank being part of the ESCB and therefore selected classes are held in **English**. Opportunities to take optional English courses as well as participate in summer schools or attend the International Week with students from partner universities help students hone their English skills and improve their ability to navigate the international environment.

Besides the quantitative and English-language content of the curriculum, the degree programme comprises a host of modules that focus closely on the application and interpretation of laws and regulations. Given that the Bundesbank has the status of a supreme federal authority with a wide range of responsibilities, **legal knowledge** is also needed in order to be able to perform tasks in the Upper Intermediate Service. With the exception of a few modules that deal exclusively with legal topics, legal themes – in keeping with the interdisciplinary approach of the degree programme – are taught together with banking operations and financial mathematics content.

The **dual concept** of the Bachelor’s programme ensures a high degree of **practical relevance** through constant alternation between theoretical and practical modules, with the material covered by these modules being coordinated in parallel by the University. Students complete a total of seven different internships and are familiar with the corporate culture in the business units of the Bundesbank/their recruiting authority (e.g. the Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht* – BaFin)) at the end of their studies. Both the **Bachelor’s thesis, with its strong practical focus**, and a final five-month internship ensure a seamless transition into employment.

The degree programme follows a fixed structure (see also Sections 1.1 and 1.2), meaning that modules have to be completed by students in a set order, taking into account their specialisations/choice of elective modules. The modules fit together and build on each other thematically. As a result, students do not need to consider how their modules tie in with each other and what previous knowledge they require, as the programme ensures this by design. Students do not need to register for individual modules; this is done automatically. The degree programme is a three-year programme and must be completed by students within the prescribed period. This period may only be extended, or study stages repeated, under mitigating circumstances judged on a case-by-case basis.

The qualifications awarded in this degree programme are based on the qualifications framework for German higher education qualifications established by the Standing Conference of the Ministers of Education and Cultural Affairs from Germany’s federal states. In addition to broadening and deepening their knowledge of a subject, the goal is to teach students the ability to apply this knowledge to

professional activities and problems using academic methods. This includes empowering students to generate new knowledge independently.

The abilities required to this end can be broken down into four categories: specialist expertise, methodological expertise, interpersonal skills and intrapersonal skills. Specialist expertise comprises all the knowledge and skills needed to successfully cope with the tasks and problems that are part and parcel of a particular professional line of work and to overcome any new challenges that may arise. In particular, it covers basic knowledge of all economic, legal and public finances disciplines, including the methods used in each, and language proficiency.

Methodological expertise refers to the ability to use appropriate methods and strategies to structure one's own activities and to make decisions, but also to plan, do and check. This also includes self-organisation, in particular the ability to set priorities, use one's time efficiently and effectively, and obtain information. Methodological expertise also includes the use of general academic working methods, the ability to independently obtain and evaluate information and to solve problems using analytical means, as well as responding flexibly to societal shifts, the use of modern information and communication technologies, mastery of organisational, planning and decision-making techniques and mastery of presentation and moderation techniques.

Interpersonal skills relate to the development and shaping of social and professional relationships, with the ability and willingness to behave in an appropriate, cooperative and goal-oriented manner during social interactions. Amongst other things, these skills cover the ability to work in a team, take criticism, handle conflicts, communicate, work with others, manage staff and empathise. Intercultural skills, which are cultivated during English language training, for example, are also a subset of interpersonal skills.

Finally, intrapersonal skills concern how people treat themselves and use their skills and actively apply themselves in their professional work. These skills include, amongst other things, the ability to adequately and critically self-reflect and self-assess, as well as the willingness to create conditions for further professional development. In addition, they are about how people deal with stress, their perseverance and work motivation, their ability and willingness to assume responsibility, as well as their ability to communicate appropriately. Intrapersonal skills include, in particular, the ability to practise self-criticism, willingness to assume responsibility, self-confidence, determination and assertiveness, resilience, the ability to cope with stress, self-organisation and self-motivation, the ability to innovate, adaptability to changing work requirements and appropriate communication with the social environment.

Besides imparting specialist and interdisciplinary knowledge through theoretical and practical study components, plenty of time is also dedicated to working on **personal and social skills**. For example, students can attend events focused on drawing up a "student code of conduct", two communication seminars and regular feedback events. In addition, living together on campus, working together on case studies and business games as well preparing for exams in study groups play a key part in the development of their social skills. In the practical modules, students gain hands-on experience of the work routines at the recruiting authorities and have to adapt to a range of working environments and teams of staff. Each student's commitment, social conduct and analytical thinking are also graded as part of the official assessment of the seven practical modules, meaning that they influence the student's final grade.

Students are also encouraged to play an active role in shaping their study experience by making their voices heard at an in-person general meeting on academic life at the University, which is held once or twice a year. In addition, there is a weekly event with student representatives in the student council in which students can express their comments and criticism to university officials, while the academic senate, on which two students sit as voting members, takes positions on all matters of fundamental importance relating to teaching, studying, training and research.

1.1 Module overview for Bundesbank students

P1-1 Overview of the Bundesbank (part 1) * See P1-2 for ECTS		P1-2 Overview of the Bundesbank (part 2) Mandatory module, 7 ECTS for P1-1 and P1-2 combined		P2 Organisation and tasks of a Bundesbank branch Mandatory module, 7 ECTS		P3A Organisation and tasks of banking supervision Mandatory module, 7 ECTS P3B Organisation and tasks of areas with operational, operative monetary policy and financial stability functions Mandatory module, 7 ECTS		Three of six <u>elective modules</u> , each module 8 ECTS: P4A Organisation and tasks of areas with operational, operative monetary policy and financial stability functions P4B Organisation and tasks of areas with interdisciplinary functions P4C Internship at a different suitable institution in Germany or abroad P4D Organisation and tasks of banking supervision P4E Professional specialisation at the Bundesbank P4F Organisation and tasks of a Bundesbank branch																												
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Study stage/workload	P1	Foundation course 32 ECTS					Practical studies 1 7 ECTS		Advanced study 32 ECTS					Practical studies 2 7 ECTS		In-depth study 1 32 ECTS					Practical studies 3 14 ECTS		In-depth study 2 20 ECTS			Bachelor's thesis 12 ECTS		Practical studies 4 24 ECTS			Σ 180 ECTS					
5 foundation modules (all mandatory modules)		5 advanced modules (all mandatory modules)		4 of 6 in-depth study 1 modules (mandatory and elective modules)		4 of 6 in-depth study 2 modules (all elective modules)																														
G1 Methodological foundations 7 ECTS, 142 teaching sessions G1-1 Academic research, study methods and communication G1-2 Information technology: an introduction G1-3 Financial mathematics and statistics: an introduction		A1 Quantitative methods 6 ECTS, 110 teaching sessions A1-1 Information technology: management and processes A1-2 Finance and statistics: deepening of knowledge		A Supervisory/ fin stab functions: V1, V2, V5 + V3 or V6 B Bank operational functions: V1, V2, V3 + V4 or V6 Q Interdisciplinary and IT functions: V1, V2, V4 + V5 or V6 Modules in in-depth study 1: V1 Bank and central bank management (mandatory) V1-1 Bank management and risk management V1-2 Central bank management and communication V2 Analysis of financial statements and financial instruments (mandatory) V2-1 Analysis of financial statements V2-2 Valuation and risk analysis of financial instruments V3 Financial markets and international economics (elective) V3-1 Securities and foreign exchange transactions, international financial markets V3-2 International economics and international governance V4 Organisation, management and human resources management (elective) V4-1 Organisation and human resources V4-2 Managing people and organisations in changing contexts V5 Banking, securities and insurance supervision (elective) V5-1 Basel Capital Accord V5-2 Securities and insurance supervision V6 Digital transformation und advanced analytics (elective) V6-1 Digital transformation V6-2 Advanced analytics V6-3 Use cases		A Supervisory and financial stability functions: W1, W2, W3, W5 B Bank operational functions: W1, W3, W4, W6 Q Interdisciplinary and IT functions: W2, W4, W5, W6 Modules in in-depth study 2: <i>Module group 1 – Case studies on core business areas</i> W1 Case studies on monetary policy and financial stability W2 Case studies on financial supervision W3 Case studies on payment and financial market infrastructure <i>Module group 2 – Key methods</i> W4 Corporate law, contract practice and contract management W5 Financial econometrics W6 Process and project management																														
Total: 32 ECTS, 602 teaching sessions		Total: 32 ECTS, 600 teaching sessions		Total: 32 ECTS, 560 teaching sessions		Total: 20 ECTS, 352 teaching sessions Defence of Bachelor's thesis Final oral exam																														

1.2 Module overview for Federal Financial Supervisory Authority (BaFin) students

P1-1 Overview of BaFin (part 1) * See P1-2 for ECTS	P1-2 Overview of BaFin (part 2) Mandatory module, 7 ECTS for P1-1 and P1-2 combined	P2 Organisation and tasks of banking supervision Mandatory module, 7 ECTS	P3A Organisation and tasks of securities supervision Mandatory module, 7 ECTS P3B Organisation and tasks of insurance supervision Mandatory module, 7 ECTS	P4A Organisation and tasks of interdisciplinary supervisory areas and consumer protection department Elective module, 8 ECTS P4B Organisation and tasks of banking supervision (deepening of knowledge) Mandatory module, 8 ECTS P4C Professional specialisation at BaFin or internship at a different suitable institution in Germany or abroad Elective module, 8 ECTS P4D Organisation and tasks of BaFin as national resolution authority Elective module, 8 ECTS
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Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Study stage/workload	P1	Foundation course 32 ECTS						Practical study 1 7 ECTS	Advanced study 32 ECTS						Practical study 2 7 ECTS	In-depth study 1 32 ECTS						Practical study 3 14 ECTS	In-depth study 2 20 ECTS				Bachelor's thesis 12 ECTS	Practical study 4 24 ECTS				Σ 180 ECTS				

5 foundation modules (all mandatory modules)

G1 Methodological foundations
7 ECTS, 142 teaching sessions
G1-1 Academic research, study methods and communication
G1-2 Information technology: an introduction
G1-3 Financial mathematics and statistics: an introduction

G2 Introduction to business administration
7 ECTS, 140 teaching sessions
G2-1 Management of operational resources
G2-2 Bookkeeping, cost accounting and financial statements

G3 Introduction to the banking industry
8 ECTS, 142 teaching sessions
G3-1 Structure of the banking system and fundamentals of the banking industry
G3-2 Introduction to central banking

G4 Introduction to the legal system: Basic Law, Civil Code and Commercial Code
5 ECTS, 90 teaching sessions

G5 Principles of economics
5 ECTS, 88 teaching sessions

Total: 32 ECTS, 602 teaching sessions

5 advanced modules (all mandatory modules)

A1 Quantitative methods
6 ECTS, 110 teaching sessions
A1-1 Information technology: management and processes
A1-2 Finance and statistics: deepening of knowledge

A2 Business administration: deepening of knowledge
7 ECTS, 128 teaching sessions
A2-1 Single-entity and consolidated financial statements, IFRS
A2-2 Theory of corporate finance

A3 Payment transactions
5 ECTS, 80 teaching sessions

A4 Credit and banking supervision
8 ECTS, 168 teaching sessions
A4-1 Applied management of credit institutions
A4-2 Fundamentals of banking and financial services supervision

A5 Monetary economics
6 ECTS, 114 teaching sessions

Total: 32 ECTS, 600 teaching sessions

4 of 6 in-depth study 2 modules (mandatory and elective modules)
Students select a specialisation (in each case: two mandatory and two elective modules worth 8 ECTS, 140 teaching sessions)

A Supervisory/financial stability functions:
V1, V2, V5 + V3 or V5
Q Interdisciplinary and IT functions:
V2, V4, V5 + V1 or V6

Modules in in-depth study 1:

V1 Bank and central bank management (elective)
V1-1 Bank management and risk management
V1-2 Central bank management and communication

V2 Analysis of financial statements and financial instruments (mandatory)
V2-1 Analysis of financial statements
V2-2 Valuation and risk analysis of financial instruments

V3 Financial markets and international economics (elective)
V3-1 Securities and foreign exchange transactions, international financial markets
V3-2 International economics and international governance

V4 Organisation, management and human resources management (elective)
V4-1 Organisation and human resources
V4-2 Managing people and organisations in changing contexts

V5 Banking, securities and insurance supervision (mandatory)
V5-1 Basel Capital Accord
V5-2 Securities and insurance supervision

V6 Digital transformation und advanced analytics (elective)
V6-1 Digital transformation
V6-2 Advanced Analytics
V6-3 Use cases

Total: 32 ECTS, 560 teaching sessions

4 of 6 in-depth study 2 modules (mandatory and elective modules)
Subject to chosen specialisation students pass 4 elective modules (4 modules worth 5 ECTS each, 88 teaching sessions)

A Supervisory and financial stability functions:
W1, W2, W3, W5
Q Interdisciplinary and IT functions:
W2, W4, W5, W6

Modules in in-depth study 2:

Module group 1 – Case studies on core business areas

W1 Case studies on monetary policy and financial stability (elective)
W2 Case studies on financial supervision (mandatory)
W3 Case studies on payment and financial market infrastructure (elective)

Module group 2 – Key methods

W4 Corporate law, contract practice and contract management
W5 Financial Econometrics (mandatory)
W6 Process and project management (elective)

Total: 20 ECTS, 352 teaching sessions

Defence of Bachelor's thesis
Final oral exam

2 Theoretical studies

The programme's theoretical studies set themselves apart by virtue of the sheer variety of teaching methods they incorporate. These range from in-person/online/hybrid lectures and exercises through to business games and role playing and even to the use of IT tools and game-design teaching elements ("gamification"), all of which involve students working together to complete tasks, solve problems and learn how to act with a goal in mind. In addition, time is built in for self-directed study. While the University gives students a broad introduction to the subject of central banking and methodological foundations using the above-mentioned teaching methods in the first two six-month stages of study, i.e. **the foundation course and advanced study**, students are able to specialise and choose elective modules in the following two stages of study (as well as in their practical studies; see Chapter 3). At the **in-depth study** stage, students first decide where they want to focus their area of study by choosing one of the following specialisations offered by the University:

A Supervisory and financial stability functions	Q Interdisciplinary and IT functions	B Bank operational functions
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In line with the specialisation they have selected, students can also choose an elective module to take. The specialisations and elective modules are geared towards the skills and methods that are important in specific areas of a central bank or a banking supervisory authority. In accordance with the study regulations, each recruiting authority may modify the curriculum and structure of degree programme specialisations in agreement with the University. Accordingly, Bundesbank and BaFin students have the following options for specialisation:

Overview 1: Modules¹ for each specialisation and recruiting authority during in-depth study periods

Specialisation Recruiting authority	Supervisory and financial stability functions	Interdisciplinary and IT functions	Bank operational functions
In-depth study 1 modules (In line with the selected specialisation, three mandatory modules and one elective module must be completed)			
Bundesbank	V1, V2, V5 and either V3 or V6	V1, V2, V4 and either V5 or V6	V1, V2, V3 and either V4 or V6
BaFin	V1, V2, V5 and either V3 or V6	V2, V4, V5 and either V1 or V6	
In-depth study 2 modules (In line with the selected specialisation, the following modules must be completed)			
Bundesbank	W1, W2, W3, W5	W2, W4, W5, W6	W1, W3, W4, W6
BaFin	W1, W2, W3, W5	W2, W4, W5, W6	

¹ Key: Overview of in-depth study modules

In-depth study 1:	In-depth study 2:
V1: Bank and central bank management	W1: Case studies on monetary policy and financial stability
V2: Analysis of financial statements and financial instruments	W2: Case studies on financial supervision
V3: Financial markets and international economics	W3: Case studies on payment transactions and financial market infrastructure
V4: Organisation, management and human resources management	W4: Corporate law, contract practice and contract management
V5: Banking, securities and insurance supervision	W5: Financial econometrics
V6: Digital transformation and advanced analytics	W6: Process and project management

Once students reach the in-depth study stage, there is a greater focus on self-directed study. For instance, the topics they cover in reports, seminar papers and presentations and then in the Bachelor's thesis they write during in-depth study 2, where they are free to choose their own supervisors and topic, are based on their choice of modules and areas of expertise.

To help students to prepare for the above-mentioned active learning-based forms of examination that have to be taken at the in-depth study stage, the University offers support in the form of compulsory classes and optional extracurricular courses. Lectures on "academic research" (G1-1a, module: Methodological foundations) focus on study and learning methods at the beginning of the students' theoretical studies, i.e. in the foundation course. Later on, at the start of the in-depth study stage, optional events offered across the span of eight teaching sessions focus on academic work in the sense of writing academic texts and preparing presentations. It is primarily during the optional events that students are shown the basics and the process of producing academic work as well as coached on how to produce seminar papers and written work in reports and on how to complete their Bachelor's thesis. Specifically, this comprises planning and organising the writing process before then carrying it out (selecting and evaluating literature, structuring, writing in the narrower sense, presenting findings, etc.). The events also look at the types of literature sources and rankings, an overview of academic approaches and methods (desk research, quantitative and qualitative research methods, focus on structure and presentation of findings), and at fundamental aspects of selecting research methods. In addition, they examine formal aspects of academic work and quality criteria and touch upon the topics of academic integrity and ethical aspects of producing academic work. These courses are rounded off by a 90-minute information event at the Frankfurt Central Office Library, in which students can learn about the research resources available to them among the library's specialist books and media databases as well as in the Bundesbank's press archive.

The learning objectives of these events are, in particular, the following:

- Students have knowledge of the process and methods involved in academic work that are necessary for preparing and writing academic texts.
- In addition, they are able to present academic content and views in a manner that can be understood by others.
- They know how to structure (standardised) introductions, summaries/conclusions and abstracts.
- Students recognise the nature and usefulness of the academic research process and of taking a systematic approach.
- They are able to obtain an overview of the current state of debate on a topic or research area.
- Students are familiar with various research methods and can choose between them to suit their goals.
- They can assess the quality of literature sources and distinguish between good and less suitable sources.
- They are familiar with the formal aspects of academic work.

The following is a list of the main works used to this end (always the latest edition):

- Goldenstein, J. et al.: Wissenschaftliche(s) Arbeiten in den Wirtschaftswissenschaften. Berlin.
- Kornmeier, M: Wissenschaftlich schreiben leicht gemacht (für Bachelor, Master und Dissertation). Stuttgart.
- Stichel-Wolf, C.; Wolf, J.: Wissenschaftliches Arbeiten und Lerntechniken: Erfolgreich studieren – gewusst wie! Berlin.
- Theisen, M. R.: Wissenschaftliches Arbeiten. Erfolgreich bei Bachelor- und Masterarbeit. Munich.

Teaching is complemented by the ILIAS learning platform. It provides students with all learning materials and supporting materials for preparation and revision. The learning platform can be accessed via the internet on any end device, at any time and in any place. Students are offered an introduction to the learning portal at the start of their first semester.

Despite the options offered to students and the opportunities they have to play an active role in shaping their study experience, the overall course of study remains general in nature and covers the core business areas of a central bank or banking supervisory authority. The decisions made regarding

specialisation and elective module provide an indication of the graduates' subsequent area of employment, professional growth and future academic career, but do not prejudice it.

The 180 credits acquired by students under the European Credit Transfer and Accumulation System (ECTS) upon completion of their degree also promote student mobility. According to Section 3(3) of the curriculum, one ECTS credit corresponds to 30 hours' workload. Thanks to the transferability of ECTS grades, it is possible for periods of study and forms of assessment undertaken at this University, as well as the skills and qualifications obtained, to be recognised by other state or state-accredited universities or comparable institutions in Germany or abroad. In addition, the University recognises equivalent periods of study and forms of assessment undertaken at other universities in its Zentralbankwesen/Central Banking degree programme (see Section 29 of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (*Verordnung über den Vorbereitungsdienst für den gehobenen Bankdienst der Deutschen Bundesbank – GBankDVDV*)).

The bilingual title of the degree programme reflects the fact that the curriculum is largely international in nature and therefore selected classes are held in English.

A strong command of written and spoken English is not only an essential prerequisite for handling the academic content of the Zentralbankwesen/Central Banking degree programme – students will also need it if they are to be able to navigate the international environment in which the Bundesbank's Upper Intermediate Service operates. The University therefore sees it as its responsibility to enable students to develop their language skills in the best possible way over the course of their studies.

Given students' lower English-language proficiency in their first year, the University does not focus on teaching in English or assessing students in English during the foundation course – instead, it provides students with an opportunity to work on their language skills. To this end, the University offers optional language courses that are tailored to the syllabus and students' future areas of employment. In order to boost the appeal of these courses and ensure that they can be taken by all, they have fixed weekly morning slots in the lecture timetable to avoid any scheduling conflicts with other activities. This means that students have the chance to work on their language skills based on their individual level of proficiency.

The share of English-language teaching increases steadily starting at the advanced study stage. Owing to the set mandatory modules that students are required to complete, it is not possible for them to switch to German-language modules. Students are also required at this stage to take part of their written exams in English. They thus have extensive opportunities over the course of the advanced study stage to continue honing their language skills and also to build up an additional, specialist vocabulary.

From in-depth study 1, English-language teaching is accompanied by active learning-based English-language exams. These take the form of written papers, presentations and oral exams and further promote the active use of the English language by students. Should students still wish to continue honing their English skills, optional courses can also be organised in individual cases at this stage of the programme. As a result, students refine their English skills over the course of the programme in such a way that they can understand challenging and complex specialist texts and also comprehend implied meaning. Students can also follow specialist discussions on central banking topics. Students will be able to communicate with each other spontaneously and fluently. In addition, the goal is to leave students with a foundation on which they can further develop their English skills so that they can use English effectively and flexibly in their professional lives.

The way in which **the percentage of English-language study content** (classes, independent study and exams) **in students' theoretical studies** is calculated is explained in more detail on the following pages.

Overview of percentage of English-language study content (teaching sessions, independent study and exams) in theoretical studies

Calculation of percentage of English-language study content in module (total) =

contact hours in module[TS] x percentage of English-language teaching sessions[%] + independent study to revise material taught during contact hours[TS] x percentage of English-language teaching sessions[%] + remaining independent study for exams[TS] x percentage of exam in English[%] according to module catalogue

*11 or 10.5 depending on the study stage or module (see the explanatory notes on the next page)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Module/name	Determining amount of English-language teaching sessions (according to module catalogue)							Determining amount of English-language independent study							Total English study content
	ECTS	Workload in module (in 60-minute teaching sessions)	Workload in module (in 45-minute teaching sessions)	Percentage of contact hours in module (%)	Number of teaching sessions in contact hours in module (in 45-minute teaching sessions)	Percentage of English-language teaching sessions in contact hours (%)	Number of English-language teaching sessions in contact hours (in 45-minute teaching sessions)	Amount of independent study in module (TOTAL), i.e. workload – contact hours (in 45-minute teaching sessions)	Percentage of independent study to prepare for/revise material taught in contact hours (%)	Amount of independent study to prepare for/revise material taught in contact hours (in 45-minute teaching sessions)	Amount of English-language independent study to prepare for/revise material taught in contact hours (in 45-minute teaching sessions and according to share of English-language teaching sessions during contact hours)	Amount of remaining independent study for exams, i.e. workload – contact hours – independent study (in 45-minute training sessions)	English-language content in module exams according to module catalogue (%)	Amount of English-language independent study to prepare for exams (in 45-minute teaching sessions)	Number of English-language contact hours + amount of English-language independent study to revise material from contact hours + amount of English-language independent study to prepare for exams (all in 45-minute teaching sessions)
G1: Methodological foundations	7	210	280	51%	142	0%	0	138	97%	138	0	0	0%	0	0
G2: Introduction to business administration	7	210	280	50%	140	4%	6	140	100%	140	6	0	0%	0	12
G3: Introduction to the banking industry	8	240	320	44%	142	38%	54	178	100%	142	54	36	30%	11	119
G4: Introduction to the legal system: Basic Law, Civil Code and Commercial Code	5	150	200	45%	90	0%	0	110	100%	90	0	20	0%	0	0
G5: Principles of economics	5	150	200	44%	88	38%	33	112	100%	88	33	24	50%	12	78
Total G modules	32	960	1280	=	602	=	93	678	=	598	93	80	=	23	209
A1: Quantitative methods	6	180	240	46%	110	0%	0	130	100%	110	0	20	0%	0	0
A2: Business administration: deepening of knowledge	7	210	280	46%	128	45%	58	152	100%	128	58	24	50%	12	128
A3: Payment transactions	5	150	200	40%	80	5%	4	120	100%	80	4	40	0%	0	8
A4: Credit and banking supervision	8	240	320	53%	168	4%	6	152	90%	151	5	1	0%	0	11
A5: Monetary economics	6	180	240	48%	114	54%	62	126	100%	114	62	12	60%	7	131
Total A modules	32	960	1280	=	600	=	130	680	=	583	129	97	=	19	279
V1: Bank and central bank management	8	240	320	44%	140	4%	6	180	100%	140	6	40	0%	0	12
V2: Analysis of financial statements and financial instruments	8	240	320	44%	140	14%	20	180	100%	140	20	40	30%	12	52
V3: Financial markets and international economics	8	240	320	44%	140	61%	85	180	50%	70	43	110	40%	44	172
V4: Organisation, management and human resources management	8	240	320	44%	140	32%	45	180	50%	70	23	110	40%	44	112
V5: Banking, securities and insurance supervision	8	240	320	44%	140	44%	61	180	100%	140	61	40	50%	20	142
V6: Digital transformation and advanced analytics	8	240	320	44%	140	30%	42	180	100%	140	42	40	30%	12	96
Total V1 modules: 4 out of 6 modules taken	32	960	1920	=	840	=	259	1080	=	700	194	380	=	132	585
W1: Case studies on monetary policy and financial stability	5	150	200	44%	88	80%	70	112	50%	44	35	68	100%	68	173
W2: Case studies on financial supervision	5	150	200	44%	88	16%	14	112	50%	44	7	68	100%	68	89
W3: Case studies on payment and financial market infrastructure	5	150	200	44%	88	10%	9	112	50%	44	5	68	0%	0	14
W4: Corporate law, contract practice and contract management	5	150	200	44%	88	10%	9	112	50%	44	5	68	0%	0	14
W5: Financial econometrics	5	150	200	44%	88	34%	30	112	100%	88	30	24	30%	7	67
W6: Process and project management	5	150	200	44%	88	11%	10	112	50%	44	5	68	0%	0	15
Total V2 modules: 4 out of 6 modules taken	20	600	1200	=	528	=	142	672	=	308	86	364	=	143	371
Total (theoretical studies)			5680												1444

To determine the percentage for a particular student, it is necessary to factor out the in-depth study 1 and 2 (V1/V2) modules that, based on their specialisation/elective module, they do not take.

25,4%
English share total

Determining the percentage of English-language study content (including exams): explanatory notes and assumption

1) Assumptions made when calculating the percentage of English-language content in modules with written and oral exams

a) Revision: Students go over what they have been taught during their contact hours at a ratio of 1:1

Students revise more intensively for modules with written exams or an oral exam (G1-G5, A1-A5 and V1, V2 and V5, W5) than they do for modules with active learning-based forms of examination, which require the preparation of seminar papers, presentations or reports. This also has an impact on the percentage of English-language study content that is revised. It is therefore assumed that the time spent on independent study for English-language content is roughly the same as the *percentage of English-language teaching* specified in the module catalogue. This means:

- i. One hour of independent study for one teaching session in German (1:1)
- ii. One hour of independent study for one teaching session in English (1:1)

b) Preparation for written and oral exams:

The students' remaining workload (workload *./.* contact hours *./.* independent study) is assumed to be exam preparation. The way in which this preparation time is divided between German and English-language content is based on the *percentage of the exam that is in English*:

- i. Independent study to revise German-language content -> dependent on percentage of the written exam that is in German
- ii. Independent study to revise English-language content -> dependent on percentage of the written exam that is in English

2) Assumptions made when calculating the percentage of English in modules with active learning-based forms of examination

a) Students go over what they have been taught during their contact hours at a ratio of 1:0.5

Experience has shown that students spend less time on independent study when revising what they have been taught during contact hours for modules without written exams, as students focus more on preparing seminar papers, presentations or reports. The time spent on independent study of English-language study content is weighted according to the *percentage of English-language lectures* specified in the module catalogue:

- i. ½ hour of independent study for one teaching session in German (0.5:1)
- ii. ½ hour of independent study for one teaching session in English (0.5:1)

b) Students prepare a seminar paper/presentation or report

The students' remaining workload (workload *./.* contact hours *./.* independent study) is assumed to be preparation for active-learning based forms of examination. The time spent on English-language study content is determined based on the *percentage of the exam that is in English*:

- i. Preparation time for German-language content -> dependent on percentage of the seminar paper, presentation or written and oral parts of report that is in German
- ii. Preparation time for English-language content -> dependent on percentage of the seminar paper, presentation or written and oral parts of report that is in English

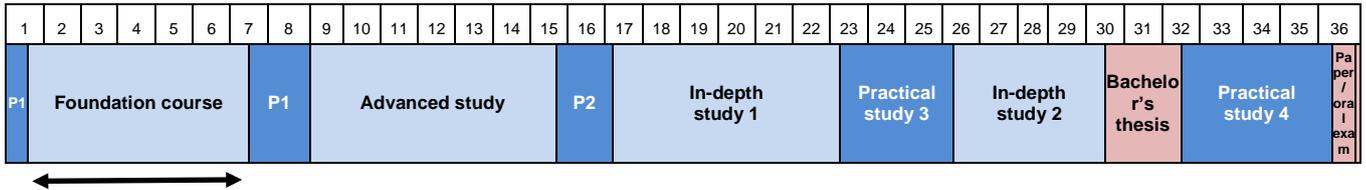
3) Formula for calculating percentage of English-language study

Percentage of English-language study in module (total) =

contact hours in module x percentage of English-language teaching + independent study to revise material taught during contact hours* x percentage of English-language teaching + remaining independent study for exam x percentage of exam in English as listed in module catalogue

* 1:1 or 1:0.5 depending on the study stage or module.

2.1 Foundation course



Module name (5 mandatory modules incl. module components)	ECTS ² credits	Contact hours (45-minute teaching sessions)	Workload (hours)	Form of examination (percentage in English)
G1: Methodological foundations (Mandatory module)	7	142	210	Written exam, 180 minutes
G1-1 Academic research, study methods and communication	1	32	30	
G1-2: Information technology: an introduction	3	54	90	
G1-3: Financial mathematics and statistics: an introduction	3	56	90	
G2: Introduction to business administration (Mandatory module)	7	140	210	Written exam, 180 minutes
G2-1: Management of operational resources	3.5	68	105	
G2-2: Bookkeeping, cost accounting and financial statements	3.5	72	105	
G3: Fundamentals of the banking industry (Mandatory module)	8	142	240	Written exam, 180 minutes (30)
G3-1: Structure of the banking system and fundamentals of the banking industry	4	68	120	
G3-2: Introduction to central banking	4	74	120	
G4: Introduction to the legal system: Basic Law, Civil Code and Commercial Code (Mandatory module)	5	90	150	Written exam, 120 minutes
G5: Principles of economics (Mandatory module)	5	88	150	Written exam, 120 minutes (50)
Total	32	602	960	5 module exams

² Credits under the European Credit Transfer and Accumulation System. According to Section 3(3) of the curriculum, one ECTS credit corresponds to 30 hours' workload.

Module	Methodological foundations
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G1
Academic level of the module	Foundation course
Type	Mandatory; quantitative content around 67%, English-language content around 11%, legal content 0%
ECTS credits	7 ECTS credits
Academic workload	210 hours, of which 106.5 contact hours (142x45-minute teaching sessions) and 103.5 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats; lectures, exercises, case studies
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components G1-1, G1-2 and G1-3; 180 minutes
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Duration of the module	6 months
Preparation	A bridge course on mathematics at the start of the foundation course (20x45-minute teaching sessions) provides students with the knowledge to successfully participate in and adequately prepare for module G1. To prepare for participation in module G1, students are advised to study the recommended preliminary reading texts for module components G1-1, G1-2 and G1-3.
Prerequisites for participation	None; students are advised to study the recommended preliminary reading texts for module components G1-1, G1-2 and G1-3.
Applicability of the module	The module counts towards other relevant degree programmes. Module A6 builds directly on the content in this module; all modules with quantitative and IT-related content build indirectly on module G1. Furthermore, the knowledge gained is applicable to activities in numerous areas of the Bundesbank, BaFin and other central banks.
Connection to other modules	Module component G1-3 lays the foundation for modules A1, A2, A3, V1, V2, V5, W5.
(Potentially) followed by	A1 Quantitative methods A2 Business administration: deepening of knowledge

Module component of G1	Academic research, study methods and communication
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G1-1
Academic level of the module	Foundation course
Type	Module component; quantitative content 10%, English-language content 0%, legal content 31%
ECTS credits	1 ECTS credit
Academic workload	30 hours, of which 24 contact hours (32x45-minute teaching sessions) and 6 hours of independent study
Teaching methods	Classes, exercises, group work, situational tasks, role playing with critical reflection and feedback, video training
Lecturer responsible for the module	Professor Matthias Goeken
Academic objectives	<p>Students are taught about the academic learning and working process. Information on learning methods is provided and discussed so that they are able to reflect on and improve their individual learning processes.</p> <p>Students will also be able to use Office applications essential to the preparation of academic papers and presentations. This includes using Microsoft Word to write, edit and publish academic texts and other exam work and using PowerPoint in presentations.</p> <p>Mastery of key competencies such as presentation techniques, teamwork and communication skills are vital to business practice. Students will refine these skills and gradually expand them.</p> <p>Students will be able to present their legal knowledge in the context of resolving a legal case in the style of a legal opinion.</p>
Preliminary reading	<p>Stickel-Wolf, Chr. / Wolf, J.: Wissenschaftliches Arbeiten und Lerntechniken, latest edition.</p> <p>Theisen, Manuel R.: Wissenschaftliches Arbeiten: Technik – Methodik. Munich, latest edition.</p> <p>Balzert et al.: Wissenschaftliches Arbeiten. Wissenschaft, Quellen, Artefakte, Organisation, Präsentation. W3L Herdecke, latest edition.</p> <p>Litzcke, S.M. Et al.: Studieren lernen, latest edition (available online).</p> <p>Wienbracke, Juristische Methodenlehre, Heidelberg, latest edition.</p>
G1-1a	Academic research and study methods
Syllabus	<ul style="list-style-type: none"> – Overview of studies – Working and learning techniques and the learning process – Learning strategies and methods (cognitive strategies, resource strategies and metacognitive strategies) – Examinations in theoretical and practical studies (written exam, presentation, seminar paper, report, internship report, completion of any other practical tasks typically performed in the Upper Intermediate Service, paper, oral exam)
G1-1b	Communication
Syllabus	<ul style="list-style-type: none"> – Key skills (presentation technique, rhetoric, teamwork and communication skills)
G1-1c	Preparing academic texts and presentations
Syllabus	<ul style="list-style-type: none"> – Word (specifically formatting and document templates, field functions, footnotes, layouts, tables of contents) – PowerPoint (specifically preparing presentations, slide masters, custom animation, embedding graphics) and alternatives
G1-1d	Resolving legal cases in the style of legal opinions
Syllabus	<ul style="list-style-type: none"> – Practical application of acquired legal knowledge – Resolution of practice legal cases – Analysis of facts and posing questions – Legal opinion style (major premise, constituent elements of offence, minor premise, conclusion)

Module component of G1	Information technology: an introduction
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G1-2
Academic level of the module	Foundation course
Type	Module component; quantitative content 80%, English-language content 10%, legal content 0%
ECTS credits	3 ECTS credits
Academic workload	90 hours, of which 40.5 contact hours (54x45-minute teaching sessions) and 49.5 hours of independent study
Teaching methods	Classes (sometimes using PCs), study group exercises, independent study
Lecturer responsible for the module	Lothar Thiel
Academic objectives	<p>Upon completion of this module, students will understand:</p> <ul style="list-style-type: none"> – the basic terminology used in information technology; – how computer systems (hardware components) are structured and how operating systems are structured and used (system-related software); – the types and possible uses of operational application systems (application software); – the basic concepts of databases; – the fundamental rules of information security. <p>Furthermore, students will be familiar with the key Office applications used by the Bundesbank. This includes:</p> <ul style="list-style-type: none"> – an introduction to spreadsheets and databases; – the functioning and use of the internet; – the fundamental functions of standard business administration software (SAP).
Preliminary reading	<p>Vonhoegen: Excel, Formeln und Funktionen (latest edition). Alpar et al.: Anwendungsorientierte Wirtschaftsinformatik: Strategische Planung, Entwicklung und Nutzung von Informationssystemen. Berlin, Heidelberg (latest edition). Hansen et al.: Wirtschaftsinformatik. Munich (latest edition). Leimeister, J.-M.: Einführung in die Wirtschaftsinformatik. Berlin (latest edition). Supplementary reading: Gumm, H-P. et al.: Einführung in die Informatik, latest edition. Laudon, K.C. et al.: Wirtschaftsinformatik, Einführung, latest edition. Kemper, Eickler: Datenbanksysteme, eine Einführung (latest edition). Manuals on the MS Office applications (latest editions)</p>
G1-2a	Introduction to information technology
Syllabus	<ul style="list-style-type: none"> – Basic terminology used in business informatics – Structure and components of an information system – Data, information, knowledge, presentation of information and figures – Hardware and computer systems – Operating systems – Prospects for operational application systems (ERP), analytical application systems (business intelligence) and cross-sectional systems (CSCW, groupware and social software) – Information/data security and data protection.
G1-2b	MS Office exercises
Syllabus	<ul style="list-style-type: none"> – Excel (calculations using functions and formulae, data analysis methods, pivot tables, handling large amounts of data) – Basic concepts of databases (ER model, relational model, normalisation; SQL basics, structure of Access as a relational database)
G1-2c	Operational application systems
Syllabus	<ul style="list-style-type: none"> – Introduction to standard and custom business administration software – Basic concepts and features of modern Enterprise Resource Planning (ERP) systems – Overview of the use of operational application systems/ERP systems at the Bundesbank

G1 module component	Financial mathematics and statistics: an introduction
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G1-3
Academic level of the module	Foundation course
Type	Module component; quantitative content 100%, English-language content 20%, legal content 0%
ECTS credits	3 ECTS credits
Academic workload	90 hours, of which 42 contact hours (56x45-minute teaching sessions) and 48 hours of independent study
Teaching methods	Classes, exercises, independent study
Lecturer responsible for the module	Professor Annabelle Kehl-Beckmann
Academic objectives	Students will master the fundamentals of financial mathematics and its application in banking operations. Moreover, they will comprehend the objectives of statistics and typical problems associated with statistics. Students will also master the basic methods of descriptive statistics, the fundamentals of probability theory and combinatorics and the use of one-dimensional distribution models.
Preliminary reading	Fahrmeir, Künstler, Pigeot, Tutz: Statistik: Der Weg zur Datenanalyse, Springer, Berlin Heidelberg New York, latest edition. Tietze, J.: Einführung in die Finanzmathematik, latest edition. Geyer, Hanke, Littich, Nettekoven: Grundlagen der Finanzierung: verstehen – berechnen – entscheiden, 5th edition, Linde Verlag 2015. Bamberg, G. et al.: Statistik, latest edition. Supplementary reading: Heidorn, Th.: Finanzmathematik in der Bankpraxis, latest edition. Bosch, K.: Elementare Einführung in die angewandte Statistik, latest edition. Bourier, G.: Beschreibende Statistik, latest edition.
G1-3a	Financial mathematics
Syllabus	<ul style="list-style-type: none"> – Calculating interest (including intra-year interest and accrued interest) in a banking context – Basics of calculating present values – Calculating annuities in a banking context – Basics of risk measurement (including value-at-risk in the case of a normal distribution hypothesis)
G1-3b	Statistics I
Syllabus	<ul style="list-style-type: none"> – Basic concepts of statistics – Descriptive statistics (including location parameters and dispersion measures of distributions) [almost all modules] – Probability theory and combinatorics, discrete random variables and univariate distribution models (including binomial and Poisson distribution) – Continuous random variables and univariate distribution models (including uniform and normal distribution)

Module	Introduction to business administration
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G2
Academic level of the module	Foundation course
Type	Mandatory module; quantitative content around 50%, English-language content around 10%, legal content around 16%
ECTS credits	7 ECTS credits
Academic workload	210 hours, of which 105 contact hours (140x45-minute teaching sessions) and 105 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components G2-1 and G2-2 180 minutes
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en?com.babel.bbk.coremedia.cae.contentbeans.BBkTeaserImpl%24%24%5Bid%3D827478%5D#target.searchParams .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module G2, students are advised to study the recommended preliminary reading texts for module components G2-1 and G2-2.
Prerequisites	None; students are advised to study the preliminary reading texts for module components G2-1 and G2-2.
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge acquired is applicable to roles in all areas of the Bundesbank, BaFin and other central banks on account of its focus on business administration. Furthermore, the knowledge gained is particularly applicable in DGs C, B, K and H.
Connection to other modules	Besides the modules that follow it, this module has a particular thematic connection with G1, G3 and G5.
(Potentially) followed by	A2 Business administration: deepening of knowledge V1 Bank and central bank management V2 Analysis of financial statements and financial instruments V4 Organisation, management and human resources management W2 Case studies on financial supervision

Module component of G2	Management of operational resources
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G2-1
Academic level of the module	Foundation course
Type	Module component; quantitative content 50%, English-language content 20%, legal content 10%
ECTS credits	3.5 ECTS credits
Academic workload	105 hours, of which 51 contact hours (76x45-minute teaching sessions) and 54 hours of independent study
Teaching methods	Classes, exercises, independent study
Lecturer responsible for the module	Professor Nicole Jung
Academic objectives	Students will be able to describe problems relating to operational resource management using the appropriate terminology and solve such problems. They will gain an overview of operational functions, their interconnections and the underlying issues regarding decision-making and be able to apply business administration methods to them.
Preliminary reading	<p>Wöhe, G. & Döring, U.: Einführung in die allgemeine Betriebswirtschaftslehre, Munich: Vahlen, latest edition.</p> <p>Vahs, D. & Schäfer-Kunz, J.: Einführung in die Betriebswirtschaftslehre, Stuttgart: Schäffer-Poeschel, latest edition.</p> <p>Homburg, C. & Krohmer, H.: Grundlagen des Marketingmanagements, Wiesbaden: Gabler, latest edition.</p> <p>Supplementary reading:</p> <p>Bamberg, G. & Coenenberg, A. G.: Betriebswirtschaftliche Entscheidungslehre, Munich: Vahlen, latest edition.</p> <p>Jung, H.: Allgemeine Betriebswirtschaftslehre, Munich: Oldenbourg, latest edition.</p> <p>Schweitzer, M.: Einleitung: Grundfragen. In: Bea, F. X., Allgemeine Betriebswirtschaftslehre, Volume 1. Stuttgart: Lucius & Lucius, latest edition.</p>
G2-1a	Introduction to business administration
Syllabus	<ul style="list-style-type: none"> – Introduction to general business administration – Operational target systems and strategies – Fundamentals of decision-making theory
G2-1b	Business administration in key operational functions
Syllabus	<ul style="list-style-type: none"> – Decision-making in procurement – Decision-making in production – Decision-making in marketing

Module component of G2	Bookkeeping, cost accounting and financial statements
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G2-2
Academic level of the module	Foundation course
Type	Module component; quantitative content 50%, English-language content 0%, legal content 20%
ECTS credits	3.5 ECTS credits
Academic workload	105 hours, of which 54 contact hours (72x45-minute teaching sessions) and 51 hours of independent study
Teaching methods	Classes, exercises, independent study
Lecturer responsible for the module	Professor Anke Lenk
Academic objectives	This module covers accounting tasks in general and bookkeeping tasks in particular. Students will learn double-entry bookkeeping as well as how to make entries in stock accounts and profit and loss accounts. They will practise and gain a greater understanding of double-entry bookkeeping on the basis of selected transactions by industrial enterprises and credit institutions. Classes will provide an initial insight into the accounting, and in particular the financial statements, of industrial enterprises, credit institutions and the Bundesbank. Students will learn about the commonly used cost accounting systems and will practise and apply their knowledge in a wide range of practical exercises and examples.
Preliminary reading	Coenenberg et al.: Jahresabschluss und Jahresabschlussanalyse, latest edition. Deutsche Bundesbank: Overview of the Deutsche Bundesbank's accounting policies, latest edition. Schuster, D.: Rechnungswesen und Controlling der Kreditinstitute, latest edition. Weber, J./Weißberger, B.: Einführung in das Rechnungswesen, latest edition. Wöhe G. et al.: Einführung in die Allgemeine BWL, latest edition. Wüstemann, J.: Buchführung case by case, latest edition.
G2-2a	Introduction to double-entry bookkeeping and financial statements
Syllabus	<ul style="list-style-type: none"> – Introduction to the (legal) basis of bookkeeping and financial statements – Inventories and stocktaking – Generally accepted accounting principles – Fundamentals and techniques of double-entry bookkeeping – Booking selected transactions – Recognition and measurement of assets
G2-2b	Particular features of accounting structures at credit institutions and the Deutsche Bundesbank
Syllabus	<ul style="list-style-type: none"> – Introduction to the (legal) basis of bookkeeping and financial statements – Inventories and stocktaking – Principles of proper accounting – Fundamentals and techniques of double-entry bookkeeping – Booking selected transactions – Recognition and measurement of assets
G2-2c	Introduction to cost and performance accounting
Syllabus	<ul style="list-style-type: none"> – Fundamentals of cost accounting – Cost-type, cost-centre, cost-unit accounting as full-cost accounting – Revenue and expenditure accounting

Module	Introduction to the banking industry
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G3
Academic level of the module	Foundation course
Type	Mandatory module; quantitative content around 18%, English-language content around 38%, legal content around 20%
ECTS credits	8 ECTS credits
Academic workload	240 hours, of which 106.5 contact hours (142x45-minute teaching sessions) and 133.5 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats; lectures, exercises, case studies
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components G3-1 and G3-2 180 minutes (30)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en?com.babel.bb.coremedia.cae.contentbeans.BBkTeaserImpl%24%24%5Bid%3D827478%5D#target.searchParams .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module G3, students are advised to study the recommended preliminary reading texts for module components G3-1 and G3-2.
Prerequisites	None; students are advised to study the recommended preliminary reading texts for module components G3-1 and G3-2.
Applicability of the module	The module counts towards other relevant degree programmes. Furthermore, the knowledge acquired is applicable to roles in all areas of the Bundesbank, BaFin, other central banks and commercial banks.
Connection to other modules	Besides the modules that follow it, this module has a particular thematic connection with G2 and G5.
(Potentially) followed by	A3 Payment transactions A4 Credit and banking supervision A5 Monetary economics V1 Bank and central bank management V5 Banking, securities and insurance supervision W2 Case studies on financial supervision

Module component of G3	Structure of the banking system and fundamentals of the banking industry
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G3-1
Academic level of the module	Foundation course
Type	Module component; quantitative content 15%, English-language content 10%, legal content 10%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 51 contact hours (68x45-minute teaching sessions) and 69 hours of independent study
Teaching methods	Classes, independent study
Lecturer responsible for the module	Professor Andreas Igl
Academic objectives	<p>Students will understand the fundamentals of credit institutions' lending and deposit business as well as the other services they offer. The module covers the most important underlying legal relationships and frameworks between customers, credit institutions and banking supervisors.</p> <p>In this context, students will obtain an overview of the set-up and structure of the banking system, the value chains of credit institutions, various business models, account management, deposit business and deposit guarantee schemes, payment transactions, fund and asset investments, lending and cross-border transactions. Moreover, they will gain an overview of the structure and functioning of the banking sector and of deposit guarantee schemes in Germany.</p>
Preliminary reading	<p>Hartmann-Wendels, T. et al.: Bankbetriebslehre, latest edition. Supplementary reading: Büschgen, H. E. et al.: Bankbetriebslehre, latest edition. Cecchetti, S. G. and Schoenholtz, K. L.: Money, Banking and Financial Markets, latest edition. Ettmann, B./Wolff, K./Wurm, G.: Kompaktwissen Bankbetriebslehre, latest edition. Grill, H./Perczynski, H.: Wirtschaftslehre des Kreditwesens, latest edition. Bieg, H./Krämer G./Waschbusch, G./Igl, A.: Bankenaufsicht in Theorie und Praxis, 5th edition. Buchmüller, P./Igl, A./Neus, W.: Einführung in die Bankenregulierung: Darstellung wesentlicher aufsichtsrechtlicher Vorgaben, latest edition.</p>
Syllabus	<ul style="list-style-type: none"> – Functions of credit institutions in an economy – Life cycle of credit institutions and their business models – The banking industry in Germany, Europe and the world at large – Credit institutions' business administration transformation functions – Credit institutions' customer relationships – Credit institutions' corporate governance – Regulation and supervision of credit institutions – Current challenges (fintech firms, Brexit, climate risks)

Module component of G3	Introduction to central banking
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G3-2
Academic level of the module	Foundation course
Type	Module component; quantitative content 20%, English-language content 65%, legal content 30%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 55.5 contact hours (74x45-minute teaching sessions) and 64.5 hours of independent study
Teaching methods	Classes, seminars, independent study
Lecturer responsible for the module	Uwe Schollmeyer
Academic objectives	Students will learn about the tasks of central banks as well as the organisation, structure and objectives of the Eurosystem and the ECB. They will be able to explain the money creation of central and commercial banks in the balance sheet context. Students will learn the key instruments involved in cash payments and cashless payments, and will be able to classify and explain basic logistical concepts related to cash. They will acquire detailed knowledge of the Eurosystem and the business activities of the Bundesbank. The main language of instruction and examination of this course is English.
Preliminary reading	Berndsen, R. J.: Financial Market Infrastructures and Payments, Veghel, 2018. Herger, N.: Wie funktionieren Zentralbanken?, Springer Gabler, latest edition. Gudehus, T.: Logistik 1 – Grundlagen, Verfahren und Strategien, Springer Vieweg, latest edition. Mishkin, F./Matthews, K./Giuliodori, M.: The Economics of Money, Banking & Financial Markets, European Edition, 2013. Verbeck, D.: Einführung in die Bargeldökonomie der Bundesrepublik Deutschland, Stuttgart, 2017. Wienbracke, M.: Grundwissen Europarecht, Munich, latest edition.
G3-2a	Money and central banks: basic concepts
Syllabus	<ul style="list-style-type: none"> – Fundamentals of money and central banking – Money creation in the modern economy – The central bank as a bank – The central bank's balance sheet
G3-2b	The Eurosystem
Syllabus	<ul style="list-style-type: none"> – Introduction to EU law and governance – Euro area, the ECB, the ESCB and the Eurosystem – The role of national central banks in the Eurosystem – Independence and accountability – The Deutsche Bundesbank: History, role, organisation and functions
G3-2c	Payment instruments
Syllabus	<ul style="list-style-type: none"> – Definition of cash and cashless payments – Legal basis of cash and cashless transactions – Key concepts of logistics, particularly cash logistics – Cash cycle, automation of cash processing – Cash planning and supply – Credit transfers and direct debits, debit and credit cards – Payment behaviour in Germany and Europe – Business activities of the Deutsche Bundesbank's branches

Module	Introduction to the legal system: Basic Law, Civil Code and Commercial Code
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G4
Academic level of the module	Foundation course
Type	Mandatory module; quantitative content 0%, English-language content 0%, legal content 100%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 67.5 contact hours (90x45-minute teaching sessions) and 82.5 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Teaching methods	Classes, group work, exercises, independent study
Lecturer responsible for the module	Professor Urs Lendermann
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam (120 minutes)
Grading	<p>Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report.</p> <p>This information is available at https://www.hochschule-bundesbank.de/hochschule-en?com.babel.bbk.coremedia.cae.contentbeans.BBkTeaserImpl%24%24%5Bid%3D827478%5D#target.searchParams.</p>
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module G4, students are also referred to the recommended preliminary reading list.
Prerequisites	None; students are advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. The acquired legal knowledge and application skills are essential for a role in a government authority. They are particularly applicable in DGs B, Z, R, P, Rv and Ve of the Bundesbank, in most business units of BaFin and in other central banks.
Connection to other modules	
(Potentially) followed by	<p>A3 Payment transactions</p> <p>A4 Credit and banking supervision</p> <p>V3 Securities market and capital market law, European governance</p> <p>V4 Organisation, management and human resources management</p> <p>W4 Corporate law, contract practice and contract management</p>

Academic objectives	Students will understand the fundamentals of the German and European legal systems. They will have knowledge of legal sources and be able to develop criteria to determine whether these pertain to public or private law. They will be able to describe the protective effects of the Basic Law, the national objectives and government bodies anchored therein, as well as their mandate and functioning; they will also be able to distinguish between a state and other types of society. Moreover, they will understand the opportunities for citizens to play a role in various regional or local authorities. In addition, students will understand the fundamentals of the Civil Code, the Commercial Code and company law. They will have the ability to analyse problems relating in particular to contract law and company law, develop solutions to case studies and present these. They will know how to defend their solutions against criticism using legal arguments and be able to develop alternative solutions. Students will be capable of using the available textbooks to acquire knowledge independently.
Preliminary reading	Brox/Walker: Allgemeiner Teil des BGB, latest edition. Jellinek, Georg: Allgemeine Staatslehre, 3rd edition, Berlin 1914. Kallwass, W. and. Abels, P.: Privatrecht, Munich, latest edition. Katz, A.: Staatsrecht: Grundkurs im öffentlichen Recht (Jurathek Studium), latest edition. Müssig: Wirtschaftsprivatrecht, Heidelberg, latest edition. Wienbracke: Einführung in die Grundrechte, Wiesbaden, latest edition.
G4a	Fundamentals of political science and German constitutional law
Syllabus	<ul style="list-style-type: none"> – Legal sources – Concept, features and types of state – Fundamental rights and organisation of the state pursuant to the Basic Law
G4b	Fundamentals of civil law
Syllabus	<ul style="list-style-type: none"> – Introduction to the German legal system – Introduction to civil law (contract law, legal obligations and property law)
G4c	Fundamentals of commercial and company law
Syllabus	<ul style="list-style-type: none"> – Introduction to commercial law (commercial undertakings, Commercial Register) – Introduction to company law (definition of company, partnership, corporation and cooperatives)

Module	Principles of economics
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	G5
Academic level of the module	Foundation course
Type	Mandatory module; quantitative content 50%, English-language content 37.5%, legal content 0%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 66 contact hours (88x45-minute teaching sessions) and 84 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Teaching methods	Classes, exercises, independent study
Lecturer responsible for the module	Professor Matthias Goeken
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam (120 minutes) (50)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en?com.babel.bbk.coremedia.cae.contentbeans.BBkTeaserImp%24%24%5Bid%3D827478%5D#target.searchParams .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module G5, students are advised to study the recommended preliminary reading texts.
Prerequisites	None; students are advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge acquired is applicable to roles in all areas of the Bundesbank, BaFin or other central banks on account of its focus on economics. Furthermore, the knowledge gained is particularly applicable in DGs Vo, M, F and ÖB.
Connection to other modules	Besides the modules that follow it, this module has a particular thematic connection with G2 and G5.
(Potentially) followed by	A5 Monetary economics V3 Financial markets and international economics W1 Case studies on monetary policy and financial stability
Academic objectives	Students will understand the principles and methodologies of economics and will be able to explain and assess the benefits and limitations of models used for economic analysis. They will acquire the tools necessary to analyse and interpret economic trends and specific micro and macroeconomic problems. Instruction and examination in this course are partly in English.

Preliminary reading	Blanchard et al.: Macroeconomics – A European Perspective, latest edition. Mankiw/Taylor: Economics, latest edition. Mankiw/Taylor: Grundzüge der Volkswirtschaftslehre, latest edition. Further recommended titles will be given during the course.
G5a	Principles of economics
Syllabus	– Object and definition of economic principles – Basic economic concepts
G5b	Microeconomics
Syllabus	– Price and market theory – Budget theory
G5c	Macroeconomics
Syllabus	– National accounts – Determining general equilibria – Government activities and macroeconomic development – Business fluctuations – Economic growth in the long term

2.2 Advanced study

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
P1		Foundation course					P1	Advanced study					P2	In-depth study 1					Practical study 3			In-depth study 2			Bachelor's thesis		Practical study 4			Paper/oral exam					



Module name (5 mandatory modules incl. module components)	ECTS ³ credits	Contact hours (45-minute teaching sessions)	Workload (hours)	Form of examination (percentage in English)
A1: Quantitative methods (Mandatory module)	6	110	180	Written exam, 180 minutes
A1-1: Information technology: management and processes	3	54	90	
A1-2: Financial mathematics and statistics: deepening of knowledge	3	56	90	
A2: Business administration: deepening of knowledge (Mandatory module)	7	128	210	Written exam, 180 minutes (50)
A2-1: Single-entity and consolidated financial statements, IFRS	4	72	120	
A2-2: Theory of corporate finance	3	56	90	
A3: Payment transactions (Mandatory module)	5	80	150	Written exam, 120 minutes
A4: Credit and banking supervision (Mandatory module)	8	168	240	Written exam, 180 minutes
A4-1: Applied management of credit institutions	4	74	120	
A4-2: Fundamentals of banking and financial services supervision	4	94	120	
A5: Monetary economics (Mandatory module)	6	114	180	Written exam, 180 minutes (60)
Total	32	600	960	5 module exams

³ Credits under the European system for the transfer and accumulation of academic achievements. According to Section 3(3) of the curriculum, one ECTS credit corresponds to 30 hours' workload.

Module	Quantitative methods
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A1
Academic level of the module	Advanced study
Type	Mandatory module; quantitative content around 83%, English-language content around 25%, legal content 0%
ECTS credits	6 ECTS credits
Academic workload	180 hours, of which 82.5 contact hours (110x45-minute teaching sessions) and 97.5 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats; lectures, exercises, case studies
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components A1-1 and A1-2 180 minutes
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en?com.babiel.bbk.coremedia.cae.contentbeans.BBkTeaserImpl%24%24%5Bid%3D827478%5D#target.searchParams .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module A1, students are advised to study the recommended preliminary reading texts for module components A1-1 and A1-2.
Prerequisites	G1 Methodological foundations Knowledge and skills imparted in G1: fundamental understanding of information systems and their aims and purposes; knowledge of information system components (hardware, software, data, organisation, relevant stakeholders and information management) and their interactions; basic data analysis skills; fundamental understanding of the structure and functioning of operational application systems as well as the integration of applications and processes Students are advised to study the recommended preliminary reading texts for module components A1-1 and A1-2.
Applicability of the module	The module counts towards other relevant degree programmes. Modules V6 and W6 build directly on the content in this module; all modules with quantitative and IT-related content indirectly build on module A1. The module component A1-2 is applicable in many different areas of the Bundesbank, particularly DGs B, S, Rc and M, as well as in BaFin and other central banks.
Connection to	The module component A1-2 covers the material content needed for the follow-on modules A2, V1, V2, V6 and W5. G1-3 forms the content basis for A1-2.

other modules	
(Potentially) followed by	V2 Analysis of financial statements and financial instruments V3 Financial markets and international economics V5 Banking, securities and insurance supervision W5 Financial econometrics W6 Process and project management

Module component of A1	Information technology: management and processes
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A1-1
Academic level of the module	Advanced study
Type	Module component; quantitative content 60%, English-language content 30%, legal content 0%
ECTS credits	3 ECTS credits
Academic workload	90 hours, of which 40.5 contact hours (54x45-minute teaching sessions) and 49.5 hours of independent study
Teaching methods	Classes (sometimes using PCs), exercises, independent study
Lecturer responsible for the module	Dr Norbert Frick
Academic objectives	<p>Students will become proficient in using standard workstation software applications. These include:</p> <ul style="list-style-type: none"> – basic functions of workflow management using Lotus Notes, and – the use of VBA in Excel to solve practical quantitative problems. <p>After completing the module, students will understand the theoretical foundations of IT management and have basic knowledge of system analysis as well as process and project management. Beyond this, students will be familiar with basic IT security management issues.</p>
Preliminary reading	<p>Laudon, K. C. et al.: Wirtschaftsinformatik, latest edition. Supplementary reading: Krcmar, H.: Einführung in das Informationsmanagement, latest edition. Sommerville, I.: Software Engineering, latest edition. Timinger, H.: Modernes Projektmanagement, latest edition. Project Management Institute: A Guide to the Project Management Body of Knowledge, latest edition. Deutsche Bundesbank: Internal rules and regulations (DB) 1-15. GPM: Kompetenzbasiertes Projektmanagement (PM4), latest edition.</p>
A1-1a	Business administration application systems
Syllabus	<ul style="list-style-type: none"> – Classification and basic concepts – Groupware and CSCW systems – Business intelligence systems
A1-1b	Introduction to IT and project management
Syllabus	<ul style="list-style-type: none"> – Introduction to project management (process models, terms and definitions, project design, stakeholders and opportunity/risk management, project organisation, case studies) – Introduction to IT management (objectives, tasks, instruments) – Theoretical foundations of process and system analysis (including application exercises) – Introduction to IT security management

Module component of A1	Financial mathematics and statistics: deepening of knowledge
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A1-2
Academic level of the module	Advanced study
Type	Module component; quantitative content 100%, English-language content 20%, legal content 0%
ECTS credits	3 ECTS credits
Academic workload	90 hours, of which 42 contact hours (56x45-minute teaching sessions) and 48 hours of independent study
Teaching methods	Classes, independent study, group work
Lecturer responsible for the module	Professor Christopher Priberny
Academic objectives	<p>Students will be able to use investment analysis methods to assess investments and make decisions regarding their implementation. In addition, they will be in a position to assess fixed-income securities under different term structures and the associated interest rate risk using the duration concept.</p> <p>Students will gain in-depth knowledge of multivariate descriptive statistics and will be able to analyse relationships using regression analysis, inter alia. Furthermore, they will acquire a deeper understanding of relevant statistical testing procedures.</p>
Preliminary reading	<p>Fahrmeir, Künstler, Pigeot, Tutz: Statistik: Der Weg zur Datenanalyse, Springer, Berlin Heidelberg New York, latest edition.</p> <p>Bosch, K.: Elementare Einführung in die angewandte Statistik, latest edition.</p> <p>Supplementary reading:</p> <p>Heidorn, T.: Finanzmathematik in der Bankpraxis, latest edition.</p> <p>Klenke, A.: Wahrscheinlichkeitstheorie, latest edition.</p> <p>Bamberg, G. et al.: Statistik, latest edition.</p> <p>Franke, J. et al.: Statistics of Financial Markets, latest edition.</p>
A1-2a	Financial mathematics
Syllabus	<ul style="list-style-type: none"> – Investment analysis taking into account capital value, calculating annuities and internal interest rate (given a flat term structure) – Valuation of fixed-income securities, particularly when taking account of term structures – Modelling of interest rate risk, especially duration
A1-2b	Statistics II
Syllabus	<ul style="list-style-type: none"> – Multivariate descriptive statistics (contingency analysis, correlation) – Univariate regression and OLS estimation – Fundamentals of multiple regression – Statistical testing and estimation methods

Module	Business administration: deepening of knowledge
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A2
Academic level of the module	Advanced study
Type	Mandatory module; quantitative content around 75%, English-language content around 50%, legal content 25%
ECTS credits	7 ECTS credits
Academic workload	210 hours, of which 96 contact hours (128x45-minute teaching sessions) and 114 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components A2-1 and A2-2 180 minutes (50)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en?com.babiel.bbk.coremedia.cae.contentbeans.BBkTeaserImpl%24%24%5Bid%3D827478%5D#target.searchParams .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module A2, students are advised to study the recommended preliminary reading texts for module components A2-1 and A2-2.
Prerequisites	G1 Methodological foundations G2 Introduction to business administration Students are advised to study the recommended preliminary reading texts for module components A2-1 and A2-2.
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge acquired is applicable to roles in all areas of the Bundesbank, BaFin or other central banks on account of its focus on fundamentals. Furthermore, the knowledge gained is particularly applicable in DGs C, B and M.
Connection to other modules	Besides the preceding modules from the foundation course and those that follow, this module has a particular thematic connection with A1 and A4.
(Potentially) followed by	V1 Bank and central bank management V2 Analysis of financial statements and financial instruments V5 Banking, securities and insurance supervision W2 Case studies on financial supervision

Module component of A2	Single-entity and consolidated financial statements, IFRS
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A2-1
Academic level of the module	Advanced study
Type	Module component; quantitative content 60%, English-language content 10%, legal content 60%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 54 contact hours (72x45-minute teaching sessions) and 66 hours of independent study
Teaching methods	Classes, independent study
Lecturer responsible for the module	Professor Anke Lenk
Academic objectives	Students will gain an overview of the accounting requirements for credit institutions and other business enterprises in accordance with the German Commercial Code and IAS/IFRS, both for single-entity and consolidated financial statements. They will master the key balance sheet recognition, valuation and disclosure requirements under the German Commercial Code (<i>Handelsgesetzbuch</i> or HGB) and IAS/IFRS, the differences between them, and how to apply them. They will understand how reporting an item in the balance sheet impacts on other parts of the financial statement and will be able to understand and apply the consolidation measures used in group accounting.
Preliminary reading	Bieg, H.: Bankbilanzierung nach HGB und IFRS, latest edition. Coenberg, A. G.: Jahresabschluss und Jahresabschlussanalyse, latest edition. Küting, K./Weber, C.: Der Konzernabschluss, latest edition. Pellens et al.: Internationale Rechnungslegung, latest edition. Scharpf, P./Schaber, M.: Handbuch Bankbilanz, latest edition. Wagenhofer, A.: Internationale Rechnungslegungsstandards, latest edition.
A2-1a	Single-entity financial statements pursuant to IFRS and the German Commercial Code
Syllabus	<ul style="list-style-type: none"> – Objectives and purposes of financial statements pursuant to the German Commercial Code and IFRS – The relationship between financial statements and tax accounts – Principles of proper accounting – Balance sheet disclosure, recognition and valuation requirements (mandatory, prohibited and optional items) and how they are reflected in the profit and loss account and notes under the German Commercial Code and IFRS – Methods of assessing and validating annual financial statements and their underlying structures
A2-1b	Special features of credit institutions' single-entity financial statements
Syllabus	<ul style="list-style-type: none"> – Disclosure and valuation requirements pursuant to the German Commercial Code (including the Regulation on the Accounting of Credit Institutions and Financial Services Institutions – <i>Verordnung über die Rechnungslegung der Kreditinstitute</i>) for selected items in credit institutions' financial statements – Recognition and valuation requirements for selected balance sheet items in IFRS financial statements – Disclosure requirements pursuant to the German Commercial Code and IFRS
A2-1c	Consolidated financial reporting
Syllabus	<ul style="list-style-type: none"> – Introduction to consolidated financial statements – Basis, definition and methods of consolidation pursuant to the German Commercial Code and IAS/IFRS

Module component of A2	Theory of corporate finance
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A2-2
Academic level of the module	Advanced study
Type	Module component; quantitative content 90%, English-language content 100%, legal content 0%
ECTS credits	3 ECTS credits
Academic workload	90 hours, of which 42 contact hours (56x45-minute teaching sessions) and 48 hours of independent study
Teaching methods	Classes, independent study, analysing case studies in groups
Lecturer responsible for the module	Professor Beate Jüttner-Nauroth
Academic objectives	Students will gain an overview of a wide range of issues of potential relevance to the financing and investment policies of businesses. They will understand the various financing alternatives and be able to critically assess them. They will be able to assess the application conditions and limitations of the models covered (including portfolio efficiency, capital asset pricing and optimal leverage ratio), in order to correctly interpret model results. Students will also be capable of applying their theoretical knowledge of the methods and specialist subject matter to practice-related tasks. The main language of instruction and examination of this course is English.
Preliminary reading	Benninga, S.: Financial Modeling, latest edition. Brealey, R. A. et al.: Principles of Corporate Finance, latest edition. Supplementary reading: Christensen, P. O. et al.: Economics of Accounting, Volume I: Information in markets, latest edition. Trautmann, S.: Investitionen, latest edition.
Syllabus	<ul style="list-style-type: none"> – Financial planning – Debt and equity financing, mezzanine capital (possibly periodic management) – Valuing bonds and stocks – Portfolio diversification – CAPM, efficient market – Payout policy and capital structure – Cost of (equity) capital (incl. WACC) – Mergers, corporate control and governance

Module	Payment transactions
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A3
Academic level of the module	Advanced study
Type	Mandatory module; quantitative content around 10%, English-language content around 5%, legal content around 45%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 60 contact hours (80x45-minute teaching sessions) and 90 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Teaching methods	Classes, group work, independent study
Lecturer responsible for the module	Uwe Schollmeyer
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam 120 minutes
Grading	Exams are graded in line with the provisions of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as on failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module A3, students are advised to study the recommended preliminary reading texts.
Prerequisites	G3 Introduction to the banking industry G4 Introduction to the legal system: Basic Law, Civil Code and Commercial Code Students are also advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. Module W3 builds directly on the content in this module. Furthermore, the knowledge gained is applicable in the Bundesbank's DGs F, H and M, BaFin's WA Directorates and other central banks.
(Potentially) followed by	V2 Analysis of financial statements and financial instruments V3 Financial markets and international economics W3 Case studies on payment and financial market infrastructure
Connection to other modules	A5 Monetary economics
Academic objectives	Students will become familiar with the basic principles of account and portfolio management and will gain an overview of the legal issues relating to bank accounts as well as banking secrecy and the disclosure of bank account information. They will understand the structure of payment systems and securities settlement infrastructures as well as the procedures for accepting monetary policy collateral in the Eurosystem. They will be able to critically assess key innovations in payment systems. Students will be capable of applying their theoretical knowledge of the methods and specialist subject matter to practice-related tasks in the field of digital

	money and explaining the business strategies and roles of central banks and payment service providers to externals.
Preliminary reading	Berndsen, R. J., Financial Market Infrastructures and Payments, Veghel, 2018. European Central Bank (2010), The payment system, Frankfurt am Main. Grill, W.; Perczynski, H.; Grill, H., Wirtschaftslehre des Kreditwesens, latest edition. Drescher, D., Blockchain Grundlagen, mitp-Verlag, Blaufelden, 2018.
A3a	Organisation of cash and cashless payments at central banks
Syllabus	<ul style="list-style-type: none"> – Processes, participants and structures in cashless payments – Business strategies and roles of central banks in payments – Counterfeits, monitoring cash recycling – Foreign payments, reserve assets and gold
A3b	Account and portfolio management, prevention and control of money laundering and terrorism financing
Syllabus	<ul style="list-style-type: none"> – Bank account, bank secrecy and bank inquiry – Account and portfolio management at the Bundesbank – Money Laundering Act (<i>Geldwäschegesetz</i>) including covenants
A3c	Infrastructure of financial markets
Syllabus	<ul style="list-style-type: none"> – Large-value and retail payment systems including instant payments – Liquidity and risk in interbank payment transactions – Foreign payments including correspondent banking – European and international settlement of payment and security settlement systems, innovations in the sector of financial infrastructures – Management of monetary policy collateral in the Eurosystem – Supervision of financial market infrastructure and payment systems
A3d	Digital money and programmable payments
Syllabus	<ul style="list-style-type: none"> – Introduction to distributed ledger technology (DLT) – Central bank digital currency and programmable payments

Module	Credit and banking supervision
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A4
Academic level of the module	Advanced study
Type	Mandatory module; quantitative content around 35%, English-language content around 10%, legal content around 72%
ECTS credits	8 ECTS credits
Academic workload	240 hours, of which 126 contact hours (168x45-minute teaching sessions) and 114 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats; lectures, exercises, case studies
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components A4-1 and A4-2 180 minutes
Grading	Exams are graded in line with the provisions of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as on failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module A4, students are advised to study the recommended preliminary reading texts for module components A4-1 and A4-2.
Prerequisites for participation	G3 Introduction to the banking industry G4 Introduction to the legal system: Basic Law, Civil Code and Commercial Code Students are advised to study the recommended preliminary reading texts for module components A4-1 and A4-2.
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge gained is applicable to all areas of the Bundesbank, BaFin and other central banks. Furthermore, the knowledge gained is particularly applicable in DGs B, F, M, ÖB, S, Vo and Z as well as in the regional offices.
Connection to other modules	Besides the preceding and following modules, this module has a particular thematic connection with modules A3 and A5.
(Potentially) followed by	V1 Bank and central bank management V2 Analysis of financial statements and financial instruments V3-2 International economics and international governance V5 Banking, securities and insurance supervision W2 Case studies on financial supervision W4 Corporate law, contract practice and contract management

Module component of A4	Applied management of credit institutions
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A4-1
Academic level of the module	Advanced study
Type	Module component; quantitative content 15%, English-language content 10%, legal content 50%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 55.5 contact hours (74x45-minute teaching sessions) and 64.5 hours of independent study
Teaching methods	Classes, independent study
Lecturer responsible for the module	Professor Andreas Igl
Academic objectives	Students will gain an understanding of the structure and potential applications of traditional financial products in banks' lending and deposit business. They will understand the major credit substitutes (including line of credit, leasing, factoring, forfaiting, ABS) and hybrid financial instruments (covering subordinated loans, participation certificates) and their possible uses at non-bank institutions. The module also includes an introduction to credit risk measurement. Students will acquire an overview of the key legal issues relating to lending business. They will be able to assess the nature and structure of loan collateral (personal and property hedges) as well as their advantages and disadvantages.
Preliminary reading	Schulte et al.: Die Praxis des Kreditgeschäfts, latest edition. Henking, C. Bluhm, L. Fahrmeier: Kreditrisikomessung – Statistische Grundlagen, Methoden und Modellierung, latest edition. B. Rudolph, B. Hofmann, A. Schaber, K. Schäfer: Kreditrisikotransfer: Moderne Instrumente und Methoden, latest edition. Bieg, H./Krämer G./Waschbusch, G./Igl, A.: Bankenaufsicht in Theorie und Praxis, 5th edition. Buchmüller, P., /Igl, A./Neus, W.: Einführung in die Bankenregulierung: Darstellung wesentlicher aufsichtsrechtlicher Vorgaben, latest edition. Claussen, C.P., Bank- und Börsenrecht, current edition. Supplementary reading: Brealey R.A. et al.: Principles of Corporate Finance, 1st. edt.
A4-1a	Management of selected assets and liabilities
Syllabus	<ul style="list-style-type: none"> – Management of assets and liabilities (ALM) <ul style="list-style-type: none"> • Types of lending business • Assessing creditworthiness • Credit monitoring and auditing • Non-performing loans – challenges in Europe – Minimum requirements for risk management (MaRisk) – Prudential requirements for IT – Current issues <ul style="list-style-type: none"> • Classification of institutions pursuant to the Capital Requirements Regulation, the Banking Act and the Payment Services Oversight Act • Ongoing supervision • Supervision of fintech firms – Climate and sustainability risks
A4-1b	Credit risk measurement and transfer
Syllabus	<ul style="list-style-type: none"> – Introduction to credit risk measurement – Credit risk transfer products (securitisations, factoring, leasing, etc.)
A4-1c	Loan agreements and loan collateral
Syllabus	<p>Legal issues relating to the lending business</p> <ul style="list-style-type: none"> – Concluding credit agreements – Duty of credit institutions to advise and provide information – Interest claim and other core contractual elements, withdrawal of credit – Consumer loans and other key types of credit <p>Legal aspects of loan collateral</p> <ul style="list-style-type: none"> – Types and legal differences – Surety and guarantee, joint liability and letter of comfort – Liens, collateral transfer, security assignment – Liens on property, in particular land charges serving as collateral

Module component of A4	Fundamentals of banking and financial services supervision
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A4-2
Academic level of the module	Advanced study
Type	Module component; quantitative content 50%, English-language content 10%, legal content 90%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 70.5 contact hours (94x45-minute teaching sessions) and 49.5 hours of independent study
Teaching methods	Classes, independent study, group work
Lecturer responsible for the module	Professor Christoph Schmidhammer
Academic objectives	Students will learn about the core objectives and the organisation of banking supervision in Germany. They will understand the division of labour between the supervisory institutions and will be familiar with the concessions and requirements vis-à-vis institutions as part of ongoing supervision as well as with measures taken in special cases. They will have an overview of standards regarding own funds positions, minimum capital requirements in the case of loans and operational risks, and the instruments of the risk-based supervisory approach, in particular the Minimum Requirements for Risk Management of credit institutions. In addition, students will know the generally applicable rules concerning government administrative actions.
Preliminary reading	Bieg, H./Krämer G./Waschbusch, G./Igl, A.: Bankenaufsicht in Theorie und Praxis, 5th edition. Buchmüller, P., /Igl, A./Neus, W.: Einführung in die Bankenregulierung: Darstellung wesentlicher aufsichtsrechtlicher Vorgaben, latest edition. De Haan, Jakob/Oosterloo, Sander/Schoenmaker, Dirk: European Financial markets and institutions, Cambridge et al., current edition. Burghof, Hans-Peter/Rudolph, Bernd: Bankenaufsicht: Theorie und Praxis der Regulierung, Wiesbaden, latest edition. Unruh, G.-Ch.v. et al.: Grundkurs Öffentl. Recht, latest edition. Grieser, Simon/Heemann, Manfred (eds.), Bankaufsichtsrecht: Entwicklungen und Perspektiven, Frankfurt, latest edition. Grieser, Simon/Heemann, Manfred (eds.), Bankenaufsicht nach der Finanzmarktkrise, Frankfurt, current edition. Hannemann, R. et al., Mindestanforderungen an das Risikomanagement, current edition.
A4-2a	Introduction to financial services supervision
Syllabus	<ul style="list-style-type: none"> – Core objectives and organisation of banking supervision in Germany and Europe – BaFin tasks and sharing of tasks with the Bundesbank – Banking business and financial services – Simple approaches for determining minimum capital requirements for credit, market and operational risk – Components of institutions' capital
A4-2b	Ongoing supervision of institutions
Syllabus	<ul style="list-style-type: none"> – Granting of authorisation for institutions to conduct business operations – Ongoing supervision of institutions (monthly returns, financial statements, inspection reports, reporting systems, inspections pursuant to Section 44 of the Banking Act) – Measures (including in special cases) and resolution of an institution – Banking Act provisions on lending business (definition of credit, group of connected clients, large exposures, loans of €1.5 million or more, loans to governing and related bodies, including the Large Exposures Regulation (<i>Großkredit- und Millionenkreditverordnung</i>)) – Overview of the risk-based supervisory approach (risk profile, risk classification, MaRisk provisions, international framework of the SRP)
A4-2c	Fundamentals of administrative law
Syllabus	<ul style="list-style-type: none"> – Government administrative actions and administrative acts – Administrative regulations and measures in banking and financial services supervision

	– Protest procedure, administrative claim
A4-2d	Financial institutions' corporate governance
Syllabus	<ul style="list-style-type: none">– Management bodies and key function holders – fit and proper assessment– Remuneration regulation– Holder control procedures– Group management structures

Module	Monetary economics
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	A5
Academic level of the module	Advanced study
Type	Mandatory module; quantitative content 50%, English-language content 50%, legal content 0%
ECTS credits	6 ECTS credits
Academic workload	180 hours, of which 85.5 contact hours (114x45-minute teaching sessions) and 94.5 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Teaching methods	Classes, group work, independent study
Lecturer responsible for the module	Professor Lilli Zimmermann
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam 180 minutes (60)
Grading	Exams are graded in line with the provisions of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as on failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module A5, students are advised to study the recommended preliminary reading texts.
Prerequisites	G3 Introduction to the banking industry G5 Principles of economics
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge gained is applicable to all areas of the Bundesbank, BaFin and other central banks. Furthermore, the knowledge gained is particularly applicable in DGs B, F, M, ÖB, S, Vo and Z.
Connection to other modules	Besides the preceding modules from the foundation course, this module has a particular thematic link to A1, A3 and A4.
(Potentially) followed by	V3 Financial markets and international economics W1 Case studies on monetary policy and financial stability W5 Financial econometrics
Academic objectives	Students will acquire basic knowledge of monetary theory, monetary policy and financial stability. They will analyse how monetary policy decisions influence economic variables, such as national income, employment and the price level. The instruments used for implementing the monetary policy strategy will be discussed in detail, as will monetary policy transmission. Alongside providing theoretical information, the module focuses on the implementation of monetary policy in the Eurosystem in practice. Furthermore, students will be able to assess the significance of financial stability for overall economic welfare. They will be aware of the fundamental causes of systemic risk and, on that basis, be able to classify the starting points of macroprudential policy. Teaching and examination for this course mainly takes place in English.
Preliminary reading	Blanchard et al.: Macroeconomics: A European Perspective, latest edition. Görgens et al., Europäische Geldpolitik, latest edition Mishkin: The Economics of Money, Banking, and Financial Markets, latest edition.

A5a	Macroeconomic basics of financial markets and monetary theory
Syllabus	<ul style="list-style-type: none"> – Introduction to financial markets – Inflation: measurement, types and causes – The Phillips Curve, the Taylor rule and the natural rate of unemployment – Rational expectations and policy implications – Rule-based monetary policy and the IS-PC-MR model – Transmission mechanisms of monetary policy – Monetary policy strategy and tactics
A5b	Central banking and the conduct of monetary policy
Syllabus	<ul style="list-style-type: none"> – ECB monetary policy framework – Statistical data as a tool for empirical monetary policy analysis – Monetary policy instruments and implementation – Liquidity provision and the collateral framework – Introduction to digital central bank money
A5c	Introduction to financial stability
Syllabus	<ul style="list-style-type: none"> – Financial crises and macroeconomic outcomes – The sources of systemic risk – Basics of macroprudential policy

2.3 In-depth study 1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
P1	Foundation course						P1	Advanced study						P2	In-depth study 1				Practical study 3			In-depth study 2			BT	Practical study 4			Paper / oral exam						

Modules (Mandatory and elective modules incl. module components)	ECTS ⁴ credits	Contact hours (45-minute teaching sessions)	Workload (hours)	Form of examination (percentage in English)
V1: Bank and central bank management (Mandatory module for Bundesbank students/elective module for BaFin students)	8	140	240	Written exam, 180 minutes
V1-1: Bank management and risk management	4	70	120	
V1-2: Central bank management and communication	4	70	120	
V2: Analysis of financial statements and financial instruments (Mandatory module)	8	140	240	Written exam, 180 minutes (30)
V2-1: Analysis of financial statements	4	70	120	
V2-2: Valuation and risk analysis of financial instruments	4	70	120	
V3: Financial markets and international economics (Elective module)	8	140	240	Report (40)
V3-1: Securities and foreign exchange transactions, international financial markets	3	50	90	
V3-2: International economics and international governance	5	90	150	
V4: Organisation, management and human resources management (Elective module)	8	140	240	Report (40)
V4-1: Organisation, and human resources	5	78	150	
V4-2: Managing people and organisations in changing contexts	3	62	90	
V5: Banking, securities and insurance supervision (Elective module for Bundesbank students/mandatory module for BaFin students)	8	140	240	Written exam, 180 minutes (50)
V5-1: Basel Capital Accord	5	90	150	
V5-2: Securities and insurance supervision	3	50	90	
V6: Digital transformation and advanced analytics (Elective module)	8	140	240	Report (30)
V6-1: Digital transformation	2	34	65.5	
V6-2: Advanced analytics	4	70	112.5	
V6-3: Use cases	2	36	62	
Total: Study comprising 4 out of 6 modules	32	560	960	4 module exams

⁴ Credits under the European Credit Transfer and Accumulation System. According to Section 3(3) of the curriculum, one ECTS credit corresponds to 30 hours' workload.

Module	Bank and central bank management
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V1
Academic level of the module	In-depth study 1
Type	Mandatory module for Bundesbank students; elective module for BaFin students; quantitative content 75%, English-language content 10%, legal content 5%
ECTS credits	8 ECTS credits
Academic workload	240 hours, of which 105 contact hours (140x45-minute teaching sessions) and 135 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats; lectures, exercises, case studies
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components V1-1 and V1-2 180 minutes
Prerequisites	
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as on failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	This mandatory/optional module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module V1, students are advised to study the recommended preliminary reading texts listed in module components V1-1 and V1-2.
Prerequisites	G2 Introduction to business administration A2 Business administration: deepening of knowledge A3 Payment transactions A4 Credit and banking supervision Students are also advised to study the recommended preliminary reading texts for module components V1-1 and V1-2.
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge gained is applicable to all areas of the Bundesbank, BaFin and other central banks. The internal bank management aspect of the module prepares students for work in the area of auditing (ongoing supervision, on-site inspections, internal audit). The knowledge gained is particularly applicable in the Bundesbank's DGs B, C, K, M, RC and RV.
Connection to other modules	
(Potentially) followed by	W2 Case studies on financial supervision W5 Financial econometrics W6 Process and project management

Module component of V1	Bank management and risk management
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V1-1
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 100%, English-language content 10%, legal content 0%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 52.5 contact hours (70x45-minute teaching sessions) and 67.5 hours of independent study
Teaching methods	Classes, case studies, exercises, independent study, group work, role-playing simulation
Lecturer responsible for the module	Professor Christoph Schmidhammer
Academic objectives	Students will be able to understand the key instruments and methods used to control profitability and risk from the normative and economic perspectives of a commercial bank, to calculate these and apply them in a bank simulation. They will recognise the importance of an interdisciplinary, interconnected approach for achieving profitable, entrepreneurial results. They will gain an overview of operational and organisational structures which facilitate efficient overall bank management and will be familiar with the methods of risk-adjusted capital allocation. Students will be able to assess interdependencies between the individual risks (interest rate risk, correlation and diversification effects), to estimate the volume and quality of own funds required to cushion the impact of risks (ICAAP) and to evaluate the qualitative processes which reveal the potential financial implications of unfavourable conditions (including stress tests).
Preliminary reading	Rolfes, B.: Gesamtbanksteuerung, latest edition. Supplementary reading: Schierenbeck, H.: Ertragsorientiertes Bankmanagement, Vol. 1, Vol. 2, Vol. 3. Latest edition in each case. Matten, C.: Managing Bank Capital, latest edition.
V1-1a	Overall bank management and risk control
Syllabus	<ul style="list-style-type: none"> – Market interest rate method (basic concept and practice models) – Calculating risk and operating costs – ROI analysis and hierarchy of ROI ratios – Target variables and competitive strategies of profitability management – Risk measurement using internal risk models – Risk/opportunity calculation and internal capacity adequacy – Quantifying and managing counterparty credit risk – Quantifying and managing market risk (interest risk, equity risk) – Earnings-based risk capital allocation for integrated risk/reward management – Fundamentals of the internal capital adequacy assessment process (ICAAP)
V1-1b	Bank simulation game
Syllabus	<ul style="list-style-type: none"> – Applying selected methods of overall bank management in a close-to-reality simulation game

Module component of V1	Central bank management and communication
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V1-2
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 50%, English-language content 10%, legal content 10%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 52.5 contact hours (70x45-minute teaching sessions) and 67.5 hours of independent study
Teaching methods	Classes, group work, exercises, independent study, case studies
Lecturer responsible for the module	Professor Oliver Kruse
Academic objectives	Students will gain an overview of the following support functions in central banks, including the relevant legal basis: controlling, auditing and communication. They will be able to describe and assess the key controlling instruments at the Bundesbank and the features of the Bundesbank's internal control system (ICS). They will also be familiar with the guiding principles behind the external and internal communication policies of the ESCB and the Bundesbank, and will be able to apply these in current communication projects. Moreover, students will be able to establish links between these support functions and the Bundesbank's core business areas.
Preliminary reading	Buchholz, U./Knorre, S.: Grundlagen der internen Unternehmenskommunikation, Berlin, latest edition. Ewert, R./Wagenhofer, A.: Interne Unternehmensrechnung, Berlin, latest edition. Freidank/Peemöller: Kompendium der Internen Revision: Internal Auditing in Wissenschaft und Praxis, Berlin, latest edition. Herbst, Dieter Georg: Rede mit mir: Warum interne Kommunikation für Mitarbeitende so wichtig ist und wie sie funktionieren könnte, Berlin, latest edition. Peemöller/Kregel: Grundlagen der Internen Revision – Standards, Aufbau und Führung, Berlin, latest edition. Rolfes, B.: Gesamtbanksteuerung, latest edition. Weber, J./Schäffer, U.: Einführung in das Controlling, Stuttgart, latest edition. Weber, J./Weißberger, B.: Einführung in das Rechnungswesen, Stuttgart, latest edition.
V1-2a	Internal central bank management
Syllabus	<ul style="list-style-type: none"> – General introduction to controlling – Definition of full and partial cost systems, in particular presentation of selected instruments – Tasks and objectives of controlling at central banks – Key controlling instruments at central banks – Operational and strategic controlling at the Bundesbank – Staff controlling (operational statistics and standard procedures) – Controlling in the Eurosystem – Risk management and business continuity planning
V1-2b	Audits and inspections at central banks
Syllabus	<ul style="list-style-type: none"> – The internal management and control system as a basic operational function – Requirements for internal audits, methods and instruments – Structure of internal audits at the Bundesbank – Cooperation within the ESCB, with the Federal Court of Auditors and external auditors
V1-2c	External and internal communication at central banks
Syllabus	<ul style="list-style-type: none"> – Strategic marketing communication for (financial) services – Guiding principles of communication at central banks: transparency and accountability – External communication strategies and projects of the ESCB and the Bundesbank – Internal communication policy of the Bundesbank

Module	Analysis of financial statements and financial instruments
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V2
Academic level of the module	In-depth study 1
Type	Mandatory module; quantitative content 90%, English-language content 25%, legal content 25%
ECTS credits	8 ECTS credits
Academic workload	240 hours, of which 105 contact hours (140x45-minute teaching sessions) and 135 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components V2-1 and V2-2 180 minutes (30)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as on failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module V2, students are advised to study the recommended preliminary reading texts listed in module components V2-1 and V2-2.
Prerequisites for participation	A1 Quantitative methods A2 Business administration: deepening of knowledge Students are also advised to study the recommended preliminary reading texts for module components V2-1 and V2-2.
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge acquired is applicable to roles in all areas of the Bundesbank, BaFin or other central banks on account of its focus on fundamentals. Furthermore, the knowledge gained is particularly applicable in DGs C, B and M as well as in the regional offices.
Connection to other modules	Besides the preceding modules from the foundation course and those that follow, this module has a particular thematic link to V1, V3, V5, W2 and W5.
(Potentially) followed by	W1 Case studies on monetary policy and financial stability W2 Case studies on financial supervision W3 Case studies on payment transactions and financial market infrastructure W5 Financial econometrics

Module component of V2	Analysis of financial statements
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V2-1
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 80%, English-language content 10%, legal content 50%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 52.5 contact hours (70x45-minute teaching sessions) and 67.5 hours of independent study
Teaching methods	Classes, independent study, analysing case studies in groups
Lecturer responsible for the module	Professor Andreas Kremer
Academic objectives	Students will be able to assess the financial position and financial performance of enterprises and credit institutions on the basis of financial statements and highlight links to banking supervisors. They will become familiar with the Deutsche Bundesbank's credit assessment procedure for enterprises and will be able to explain and interpret the Eurosystem's weekly report and the financial statements of the Bundesbank and the European Central Bank.
Preliminary reading	Baetge et al.: Bilanzanalyse, latest edition. Beck'sches IFRS-Handbuch, latest edition. Bieg: Bankbilanzierung nach HGB und IFRS, latest edition. Coenberg et al.: Jahresabschluss und Jahresabschlussanalyse, latest edition. Küting et al.: Die Bilanzanalyse, latest edition. Kremnow et al. (eds.): Rechnungslegung der Kreditinstitute, latest edition. Padberg: Bankbilanzanalyse, latest edition. Supplementary reading: Penman: Financial Statement Analysis and Security Valuation, latest edition. Ryan: Financial Instruments and Institutions, latest edition.
V2-1a	Introduction to financial statement analysis
Syllabus	<ul style="list-style-type: none"> – Information needs of readers of the financial statements – Measures taken to prepare the financial statements – Analysis of the financial position and financial performance – Analysis of key figures – Strategic perspective – Credit assessment of business enterprises by the Bundesbank
V2-1b	Special features of the analysis of credit institutions' financial statements, including prudential aspects
Syllabus	<ul style="list-style-type: none"> – Consideration of accounting policy instruments in the bank balance sheet and special features of the structure of the bank balance sheet – Analysis of the result and its components – Analysis of own capital – Consideration of supervisory reference variables – Evaluation of credit institutions' financial statements as part of banking supervision
V2-1c	Analysis of the financial statements of the Bundesbank and the European Central Bank
Syllabus	<p>Weekly financial statement of the Eurosystem:</p> <ul style="list-style-type: none"> – Legal basis, layout and valuation rules – Purpose and informative value: the weekly financial statement as a reflection of the functions of a central bank <p>Bundesbank financial statement and ECB balance sheet:</p> <ul style="list-style-type: none"> – Preparation guidelines – Valuation rules and accounting policies – Profit and loss account
V2-1d	Data analysis
Syllabus	Using a suitable dataset, knowledge gained theoretically through concrete data analysis is broadened by means of statistical methods.

Module component of V2	Valuation and risk analysis of financial instruments
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V2-2
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 100%, English-language content 40%, legal content 0%
ECTS credits	4 ECTS credits
Academic workload	120 hours, of which 52.5 contact hours (70x45-minute teaching sessions) and 67.5 hours of independent study
Teaching methods	Classes, independent study, analysing case studies in groups
Lecturer responsible for the module	Professor Beate Jüttner-Nauroth
Academic objectives	Students will gain an in-depth understanding of the financial instruments and derivatives relevant to the banking industry. Students will be familiar in particular with the structure and valuation of such financial instruments using quantitative procedures, and the associated payment, profit and loss profiles. They will have an overview of typical uses of these financial instruments (hedging, arbitrage, speculation) and how payment profiles can be hedged using a combination of financial instruments. In addition, students will be able to apply commonly used fair valuation formulas to financial derivatives.
Preliminary reading	Hull, J.C.: Options, Futures, and Other Financial Derivatives, latest edition. Supplementary reading: Benninga, S.: Financial Modeling, latest edition. Neftci, S.: An Introduction to the Mathematics of Financial Derivatives, latest edition. Wiedemann, A.: Financial engineering, latest edition.
Syllabus	<ul style="list-style-type: none"> – Introduction to derivatives and futures markets – Profit and loss profiles of derivative financial instruments – Introduction to financial engineering (incl. “stripping”) – Valuation of forwards and futures – Valuation of swaps – Valuation of options (including sensitivities) – Valuation of interest rate and credit derivatives – Significance of financial derivatives in the context of the 2008-09 financial crisis – Valuation of option-based interest rate derivatives – Risk management using derivative financial instruments

Module	Financial markets and international economics
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V3
Academic level of the module	In-depth study 1
Type	Elective module; quantitative content around 40%, English-language content 61%, legal content 25%
ECTS credits	8 ECTS credits
Academic workload	240 hours, of which 105 contact hours (140x45-minute teaching sessions) and 135 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Examination date	During the study stage
Form of examination (percentage in English)	Report (40)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as on failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module V3, students are advised to study the recommended preliminary reading texts listed in module components V3-1 and V3-2.
Prerequisites for participation	A1 Quantitative methods A3 Payment transactions A4 Credit and banking supervision A5 Monetary economics Students are also advised to study the recommended preliminary reading texts for module components V3-1 and V3-2.
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge gained is essential for staff employed at a central bank belonging to the European System of Central banks and is applicable in the Bundesbank's DGs B, F, M, R, S, Vo and Z, in BaFin and other central banks.
Connection to other modules	In addition to the previous modules and the (potential) modules that follow, this module has a particular link to V2 and V5.
(Potentially) followed by	W1 Case studies on monetary policy and financial stability W3 Case studies on payment and financial market infrastructure W4 Corporate law, contract practice and contract management W5 Financial econometrics

Module component of V3	Securities and foreign exchange transactions, international financial markets
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V3-1
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 30%, English-language content 24%, legal content 60%
ECTS credits	3 ECTS credits
Academic workload	90 hours, of which 37.5 contact hours (50x45-minute teaching sessions) and 52.5 hours of independent study
Teaching methods	Classes, independent study, group work
Lecturer responsible for the module	Professor Oliver Kruse
Academic objectives	Students will gain an overview of the general conditions prevailing in the national and international financial markets. They will be able to distinguish the various types of securities, analyse their risks and use the key market information systems. They will have an overview of the forms and procedures for national and international security issuances as well the settlement, safe custody and administration of securities. They will also understand common investment strategies of both credit institutions and customers and have an overview of the taxation of capital gains. Students will be familiar with the Bundesbank's securities and foreign exchange transactions, including the management of reserve assets and civil servant pension funds, and will be able to apply the relevant legal provisions (securities trading, investor protection).
Preliminary reading	Steiner, M. & Bruns, C.: Wertpapiermanagement, latest edition. Hartmann-Wendels, T. et al.: Bankbetriebslehre, latest edition. Langenbacher, Bliesener, Spindler, Bankrechts-Kommentar, Munich, latest edition. Supplementary reading: Buch-Heeb, P.: Kapitalmarktrecht, latest edition. Spremann, K. et al.: Zinsen, Anleihen, Kredite, latest edition. Hull, J.C.: Risk Management and Financial Institutions, latest edition.
V3-1a	Securities and capital market law
Syllabus	<ul style="list-style-type: none"> – Securities: types, features and transfer – Securities transactions: exchange trading and over-the-counter (OTC) trading; investment advice – Capital markets law: stock exchange; investor protection – Underwriting business and syndicated lending
V3-1b	Securities transactions and international financial markets
Syllabus	<ul style="list-style-type: none"> – Trading in conventional, special and derivative securities – General and product-specific investment risks; investment strategies – International financial markets, types/forms of trading, information systems – Issuance procedures; national and international settlement of securities – Taxation of capital gains – National and international clearing and settlement systems – Capital market statistics
V3-1c	Foreign exchange market, foreign exchange market interventions and reserve assets
Syllabus	<ul style="list-style-type: none"> – Foreign exchange transactions from the perspective of commercial banks and the Bundesbank – Organisation and settlement of foreign exchange transactions at the Bundesbank – Management of foreign reserves (national reserves and ECB reserves) – Setting euro reference exchange rates – Reporting on the foreign exchange market and exchange rate and gold price statistics

Module component of V3	International economics and international governance
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V3-2
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 50%, English-language content 81%, legal content 30%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 67.5 contact hours (90x45-minute teaching sessions) and 82.5 hours of independent study
Teaching methods	Classes, independent study, group work
Lecturer responsible for the module	Professor Tobias Körner
Academic objectives	Students will gain an overview of the reasons for the emergence of foreign trade, be able to gauge the implications of foreign trade ties for the domestic and global economy, and learn how to evaluate trade policy measures. They will be able to establish connections between real and monetary foreign trade relations. They will become familiar with the determinants of exchange rates and be able to classify and analyse monetary systems based on their structural features. Students will acquire a deeper understanding of the institutional framework of the European Union and the role Germany plays within it. They will gain an overview of the basic concepts of external sector statistics and learn about the Bundesbank's tasks in this context. The main language of instruction and examination of this course is English.
Preliminary reading	Herdegen, Europarecht, latest edition. Chalmers et al.: European Union Law, latest edition. Krugman, P.R. et al.: International Economics, latest edition. Mishkin, F. S.: The Economics of Money, Banking, and Financial Markets, latest edition.
V3-2a	International trade theory and policy
Syllabus	<ul style="list-style-type: none"> – Empirical characterisation of international trade patterns – Theoretical foundations of specialisation and the gains from trade – Economic analysis of international trade policy – Political economy of trade policy
V3-2b	Exchange rates, open-economy macroeconomics and international macroeconomic policy
Syllabus	<ul style="list-style-type: none"> – National income accounting and the balance of payments – Exchange rates and the foreign exchange market – Money, interest rates and exchange rates – Exchange rates, price levels and output – Fixed exchange rates and foreign exchange intervention
V3-2c	International and European governance
Syllabus	<ul style="list-style-type: none"> – EU law and governance – The role of the ECB in European economic policies
V3-2d	International statistical concepts
Syllabus	<ul style="list-style-type: none"> – Balance of payments and international investment position – Cooperation on statistics in the ESCB – Role and tasks of the Bundesbank

Module	Organisation, management and human resources management
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V4
Academic level of the module	In-depth study 1
Type	Elective module; quantitative content around 5%, English-language content 35%, legal content 10%
ECTS credits	8 ECTS credits
Academic workload	240 hours, of which 105 contact hours (140x45-minute teaching sessions) and 135 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Examination date	During the study stage
Form of examination (percentage in English)	Report (40)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module W2, students are advised to study the recommended preliminary reading texts listed in module components V4-1 and V4-2.
Prerequisites	G2 Introduction to business administration Students are also advised to study the recommended preliminary reading texts for module components V4-1 and V4-2.
Applicability of the module	The module counts towards other relevant degree programmes. The essential nature of its content and its focus on understanding organisations and interactions within organisations make this module useful for activities – especially management activities – in all areas of the Bundesbank, BaFin and other central banks. In addition, this knowledge is especially useful for activities in the DGs ÖB, P, K and C as well as in the relevant sections of the regional offices.
Connection to other modules	Besides the preceding modules, this module is most closely related to modules V6, V1-2c and W6.
(Potentially) followed by	

Module component of V4	Introduction to organisation, human resources and management
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V4-1
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 10%, English-language content 10%, legal content 25%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 58.5 contact hours (78x45-minute teaching sessions) and 91.5 hours of independent study
Teaching methods	Classes, group work, independent study
Lecturer responsible for the module	Professor Nicole Jung
Academic objectives	<p>Students will be able to classify and analyse formal and informal organisational structures and processes of enterprises and develop proposals with respect to shaping these in a targeted manner. They will understand the significance of the persons involved in guaranteeing the survival and success of an organisation and its structures and will know how to motivate and manage individuals and groups. Moreover, they will gain an overview of the various instruments and challenges of modern human resources management and will be able to understand how this ties in with collective and individual labour law as well as public sector law (including work constitution and staff representation law). In addition, students will learn what their rights and duties are as civil servants.</p>
Preliminary reading	<p>Bröckermann, R.: Personalwirtschaft: Lehr- und Übungsbuch für Human Resource Management, latest edition. Jung, H.: Personalwirtschaft, latest edition. Kieser, A. & Walgenbach, P.: Organisation, latest edition. Greenberg, J.: Managing Behavior in Organizations, latest edition. Meyer, E. et al.: Contemporary Management (European Edition), latest edition. Schreyögg, G.: Organisation: Grundlagen moderner Organisationsgestaltung, latest edition. Wichmann, M. & Langer, K.-U.: Öffentliches Dienstrecht, latest edition. Wörten, Kokemoor, Arbeitsrecht, Munich, latest edition. Supplementary reading: Brox, H. et al.: Arbeitsrecht, latest edition. Vahs, D.: Organisation. Ein Lehr- und Managementbuch, latest edition.</p>
V4-1a	Organisational behaviour and the design, management and development of organisations
Syllabus	<ul style="list-style-type: none"> – Basic terminology – Lines of development in organisation theory – Formal organisational structures (specialisation, configuration) – Informal organisation (corporate culture, (micro-) political processes) – Integration of the individual and the organisation (individual/group behaviour); behaviour management (leadership) – Current trends in organisational structures
V4-1b	Human resources management
Syllabus	<ul style="list-style-type: none"> – Human resources and labour: practice and theory – Staff requirement planning – Staff recruitment – Staff deployment and management (appraisals, remuneration) – Staff development – New challenges in HR management
V4-1c	Fundamentals of labour law and of public sector law
Syllabus	<ul style="list-style-type: none"> – Labour law: introduction, individual labour law, collective labour law, work constitution law – Public sector law: staff representation law, introduction to civil service law, disciplinary law, equal opportunities law and collective bargaining law

Module component of V4	Managing people and organisations in changing contexts
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V4-2
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 0%, English-language content 50%, legal content 10%
ECTS credits	3 ECTS credits
Academic workload	90 hours, of which 46.5 contact hours (62x45-minute teaching sessions) and 43.5 hours of independent study
Teaching methods	Classes, group work, independent study
Lecturer responsible for the module	Professor Nicole Jung
Academic objectives	Students will learn about the importance of change within organisations as well as the associated challenges and possible solutions. In particular, they will understand the role of communication in the context of change management and will be familiar with typical situations relating to differences in intercultural communication, taking into account financial and business ethics aspects. In addition, they will master the common intercultural communication tools used in international working groups.
Preliminary reading	<p>Broszinsky-Schwabe, E. Interkulturelle Kommunikation: Missverständnisse und Verständigung, latest edition, Wiesbaden: Springer VS.</p> <p>Doppler, K. & Lauterburg, Ch.: Change Management: den Unternehmenswandel gestalten, latest edition, Frankfurt a. M.: Campus.</p> <p>Genkova, P. Interkulturelle Wirtschaftspsychologie, latest edition, Berlin: Springer.</p> <p>Hayes, J. The theory and practice of change management, latest edition, London: Palgrave.</p> <p>Heringer, H. J. Interkulturelle Kommunikation, latest edition, Tübingen: A. Francke.</p> <p>Hiatt, J. M. & Creasey, T. J. Change management: the people side of change, latest edition, Loveland: Prosci Research.</p> <p>Hodges, J. Managing and leading people through organizational change: The theory and practice of sustaining change through people, latest edition, London [inter alia]: KoganPage</p> <p>Hofstede, G., Hofstede G. J. & Minkov, M. (2010): Cultures and organizations: software of the mind, 3rd edition. New York: McGraw-Hill.</p> <p>Holliday, A., Kullman, J. & Hyde, M. Intercultural Communication: An advanced resource book for students, latest edition, London, New York: Routledge.</p> <p>Thomas, A. Interkulturelle Psychologie: Verstehen und Handeln in internationalen Kontexten, latest edition, Göttingen: Hogrefe.</p> <p>Palmer, I., Dunford, R. & Akin, G. Managing organizational change: a multiple perspectives approach, latest edition, Boston: McGraw-Hill.</p> <p>Kotter, J. P. (2011): Leading Change: Wie Sie Ihr Unternehmen in acht Schritten erfolgreich verändern. Munich: Vahlen.</p> <p>Lüsebrink, H.-J. Interkulturelle Kommunikation: Interaktion, Fremdwahrnehmung, Kulturtransfer, latest edition, Stuttgart: J. B. Metzler.</p> <p>Drexler, Barbara: The Clash of Monetary Civilizations: Central Bank Communication in Theory and Practice, latest edition.</p>
V4-2a	Selected areas of competence and activity
Syllabus	<ul style="list-style-type: none"> – Change management – Interculturality – Communication – Business ethics
V4-2b	Current practical workshops, guest lectures and case studies
Syllabus	<ul style="list-style-type: none"> – Consolidation and practical application of the content from V4-1 and V4-2a on current issues and projects at the Bundesbank, BaFin and other organisations in lectures, discussions, workshops, projects, interactive tasks, etc.

Module	Banking, securities and insurance supervision
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V5
Academic level of the module	In-depth study 1
Type	Elective module for Bundesbank students/mandatory module for BaFin students; quantitative content 50%, English-language content 36%, legal content 90%
ECTS credits	8 ECTS credits
Academic workload	240 hours, of which 105 contact hours (140x45-minute teaching sessions) and 135 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Examination date	At the end of the study stage
Form of examination; preparation time (percentage in English)	Written exam covering tasks from module components V5-1 and V5-2 180 minutes (50)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module V5, students are advised to study the recommended preliminary reading texts listed in module components V5-1 and V5-2.
Prerequisites	A1 Quantitative methods A2 Business administration: deepening of knowledge A4 Credit and banking supervision Students are also advised to study the recommended preliminary reading texts for module components V5-1 and V5-2.
Applicability of the module	The module counts towards other relevant degree programmes. Furthermore, the knowledge gained is helpful for activities in the Bundesbank's Directorates General Banking and Financial Supervision, Statistics, and Markets, as well as at BaFin and other central banks. This module provides a holistic overview of banking and financial (services) supervision and in Germany and Europe.
Connection to other modules	Besides the preceding modules, this module is most closely related to modules W2 and W5.
(Potentially) followed by	W1 Case studies on monetary policy and financial stability W2 Case studies on financial supervision W5 Financial econometrics

Module component of V5	Basel Capital Accord
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V5-1
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 80%, English-language content 50%, legal content 90%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 67.5 contact hours (90x45-minute teaching sessions) and 82.5 hours of independent study
Teaching methods	Classes, case studies, exercises, independent study, group work
Lecturer responsible for the module	Professor Christoph Schmidhammer
Academic objectives	Students will gain knowledge of the regulations of risk-based banking supervision under the Basel framework, including the monitoring of liquidity risks, and will be able to apply them. This includes the minimum capital requirements for credit, operational and market risks under Pillar 1, the implementation of the supervisory review process (SRP) described in Pillar 2 in the Minimum Requirements for Risk Management (MaRisk), the disclosure requirements under Pillar 3, and liquidity supervision pursuant to the Delegated Regulation and the CRR. In particular, students will be able to understand how minimum capital requirements are calculated for banks. They will be aware that supervision is based not only on quantitative indicators, but also on a broader assessment of banks' risk management systems, taking into account the overall circumstances. They will also become familiar with the tasks of the international standard-setting bodies and European supervisory authorities.
Preliminary reading	Bieg, H./Krämer G./Waschbusch, G./Igl, A.: Bankenaufsicht in Theorie und Praxis, 5th edition. Buchmüller, P./Igl, A./Neus, W.: Einführung in die Bankenregulierung: Darstellung wesentlicher aufsichtsrechtlicher Vorgaben, latest edition. Cramme, T. et al. (eds.): Handbuch Solvabilitätsverordnung. Eigenkapitalunterlegung von Markt-, Kredit- und Operationellem Risiko, Stuttgart, latest edition. Supplementary reading: Klauck, Kai-Oliver/Stegmann, Claus: Basel III, Stuttgart, latest edition. Hartley, T.C.: The Foundations of European Community Law, latest edition. Zeranski, S. (ed.): Ertragsorientiertes Liquiditätsrisikomanagement, 2nd edition, Heidelberg, latest edition. Bartetzky et al. (eds.): Handbuch Liquiditätsrisiko, Stuttgart, latest edition. In addition, preliminary reading for module component A4-2.
V5-1a	Basel III – Pillar 1
Syllabus	<ul style="list-style-type: none"> – Advanced approaches for determining the minimum capital requirements for <ul style="list-style-type: none"> o credit risk (IRBA, credit risk mitigation techniques) o operational risk (incl. proposal by the European Commission) o market risk (including trading book risks and internal risk models) – Securitisation transactions – Quantitative impact study (QIS) for estimating the minimum capital requirements of new regulations – Fundamentals of the definition of own funds – European banking supervision in depth (EBA, SSM, banking union)
V5-1b	Basel III – Pillars 2 and 3 (including liquidity supervision)
Syllabus	<ul style="list-style-type: none"> – Specific provisions of MaRisk – Additional capital buffer for institutions – Disclosure requirements for institutions – German Liquidity Regulation, LCR and NSFR and associated provisions on the supervision of liquidity risk
V5-1c	Current developments in European supervisory law
Syllabus	<ul style="list-style-type: none"> – Architecture, tasks and objectives of international standard-setting bodies and supervisory authorities – Legislative process in the European committee structure – Case study on legal hierarchy: from recommendation to national regulation

Module component of V5	Securities and insurance supervision
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V5-2
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 20%, English-language content 10%, legal content 90%
ECTS credits	3 ECTS credits
Academic workload	90 hours, of which 37.5 contact hours (50x45-minute teaching sessions) and 52.5 hours of independent study
Teaching methods	Classes, independent study, group work, exercises, case studies
Lecturer responsible for the module	Professor Andreas Höfer
Academic objectives	Students will learn about the statutory supervision standards for organised capital markets and for enterprises that are able to tap the capital markets as well as the links with other areas of financial market supervision. Moreover, students will acquire an overview of the economic and legal framework of the insurance industry, its risk profile and the structures of insurance supervision. In addition, students will be able to apply the core insurance supervision standards and identify differences and similarities vis-à-vis banking supervision.
Preliminary reading	Farny, D.: <i>Versicherungsbetriebslehre</i> , latest edition. Schäfer, H. (eds.): <i>Compliance – Konsequenzen verschärfter Vorgaben aus WpHG und Bankenaufsicht</i> , latest edition. Gründl, H./Perlet, H.: <i>Solvency II & Risikomanagement</i> , latest edition. Gründl, H./Kraft, M. (Eds.): <i>Solvency II – Eine Einführung</i> , latest edition. Nguyen, T./Romeike, F.: <i>Versicherungswirtschaftslehre – Grundlagen für Studium und Praxis</i> , latest edition. Gondring, H.: <i>Versicherungswirtschaft: Handbuch für Studium und Praxis</i> , latest edition. Bennemann, C./Oehlenberg L./Stahl, G.: <i>Handbuch Solvency II</i> , latest edition. Führer, C./Grimmer, A.: <i>Einführung in die Lebensversicherungsmathematik</i> , 1st. edition. Looschelders, D./Paffenholz, C./Krimphove, D.: <i>Versicherungsvertragsrecht</i> , latest edition. Lengyel, S.: <i>Die Bilanzen der Versicherungsunternehmen – Eine Bilanzlehre und eine Bilanzanalyse</i> , latest edition. Bähr (Ed.): <i>Handbuch des Versicherungsaufsichtsrechts</i> , latest edition. Schwepcke, A./Vetter, A.: <i>Praxishandbuch: Rückversicherung</i> , latest edition. Schwepcke, A.: <i>Rückversicherung</i> , latest edition. Erdmann, K. (Ed.): <i>Grundzüge des Versicherungsaufsichtsrechts</i> , latest edition.
V5-2a	Securities supervision
Syllabus	<ul style="list-style-type: none"> – BaFin's responsibilities regarding securities supervision/asset management – Obligations arising from listing securities on a stock exchange as well as acquisition procedures and balance sheet checks – Inspection of securities and investment prospectuses – Market integrity, in particular monitoring of insider trading, market manipulation – Organisational rules and rules of conduct for securities service providers – Supervision of investment companies – International supervisory bodies
V5-2b	Insurance industry: organisation, business lines and insurance policies
Syllabus	<ul style="list-style-type: none"> – Organisational forms of insurance companies, associations – Types of policies, types of insurance, definition and balancing of risk – Primary insurance and reinsurance, insurtech companies, fundamentals of calculating premiums – Structure and items of financial statements; financial statement analysis
V5-2c	Insurance supervision
Syllabus	<ul style="list-style-type: none"> – Fundamentals of insurance supervision – Granting and revocation of authorisation – Legal supervision – supervisory activities, authorisation requirements and supervision of special supervised institutions – Financial supervision – quantitative and qualitative requirements for insurance companies in the context of ongoing supervision (including mathematical aspects of supervision, e.g. with regard to insurance technical reserves and surplus distribution) – Supervision of institutions for occupational retirement provision

Module	Digital transformation and advanced analytics
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V6
Academic level of the module	In-depth study 1
Type	Elective module; quantitative content 44%, English-language content 30%, legal content 0%
ECTS credits	8 ECTS credits
Academic workload	240 hours, of which 105 contact hours (140x45-minute teaching sessions) and 135 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats; lectures, exercises, case studies
Examination date	During the study stage
Form of examination; (percentage in English)	Presentation (30)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	6 months
Preparation	To prepare for participation in module V6, students are advised to study the recommended preliminary reading texts listed in module components V6-1, V6-2 and V6-3.
Prerequisites	A1 Quantitative methods Knowledge already acquired from modules G1 and A1 on application systems and digital transformation as well as business intelligence Existing knowledge of data analysis using Excel; acquired knowledge of project management Students are also advised to study the recommended preliminary reading texts for module components V6-1, V6-2 and V6-3.
Applicability of the module	The module counts towards other relevant degree programmes. Modules W5 and W6 are directly related to the teaching content; modules with quantitative and IT-related content build indirectly on module V6. The knowledge gained is applicable to activities in almost all the Bundesbank's directorates general, as well as at BaFin and other central banks.
Connection to other modules	
(Potentially) followed by	W5: Financial econometrics W6: Process and project management

Module component of V6	Digital transformation
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V6-1
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 20%, English-language content 33%, legal content 0%
ECTS credits	2 ECTS credits
Academic workload	65.5 hours, of which 25.5 contact hours (34x45-minute teaching sessions) and 40 hours of independent study
Teaching methods	Classes, independent study, group work, project work and laboratory projects
Lecturer responsible for the module	Professor Matthias Goeken
Academic objectives	<p>Students</p> <ul style="list-style-type: none"> – will learn the challenges organisations face in light of increasing digitalisation from a technical, organisational and human resources perspective; – will be able to describe key management challenges as well as approaches and concepts for dealing with them; – will learn methods aimed at implementing innovations and changes within organisations.
Preliminary reading	<p>Baltes G, Freyth A: Veränderungsintelligenz: Agiler, Innovativer, Unternehmerischer Den Wandel Unserer Zeit Meistern. Wiesbaden: Gabler, latest edition.</p> <p>Brynjolfsson E, McAfee A: The second machine age: Work, progress, and prosperity in a time of brilliant technologies. New York, London: W.W. Norton & Company, latest edition.</p> <p>Hess T: Digitale Transformation strategisch steuern: Vom Zufallstreffer zum systematischen Vorgehen. Wiesbaden: Springer Fachmedien Wiesbaden, 1st.edition.</p> <p>Siebel TM, Rice C: Digital transformation: Survive and thrive in an era of mass extinction. New York, NY: RosettaBooks, latest edition.</p> <p>Stahl R, Staab P: Don't worry, be digital: Tipps für einen angstfreien Umgang mit Digitalisierung, latest edition.</p> <p>Streicher HW: Digitale Transformation in der öffentlichen Verwaltung: Praxishandbuch für Projektleiter und Führungskräfte. 1st ed. Berlin: Springer Berlin; Springer Gabler, latest edition.</p> <p>Uebornickel, Falk et al.: Design Thinking: Das Handbuch. Frankfurter Allgemeine Verlag, latest edition.</p>
V6-1a	Introduction and basic concepts (10 teaching sessions (TS))
Syllabus	<ul style="list-style-type: none"> – Basic concepts and framework conditions – Strategies and structures for digital transformation – Business models and value added in the digital age – Levels and frameworks of digital transformation – Relevant technologies – Case studies on fundamentals/organisation, value added structures and business models
V6-1b	Leadership and work in digital transformation (12 TS)
Syllabus	<ul style="list-style-type: none"> – Challenges of a new working environment – New work/future work – Digital leadership/new leadership – Change intelligence and change management – Roles in digital transformation – Case studies on leadership and work in digital transformation
V6-1c	Agile methods and innovation culture (12 TS)
Syllabus	<ul style="list-style-type: none"> – Values and principles of agility – Agility as a response to increasing environmental dynamics/VUCA – Potential and limits of organisational agility – Innovation and innovation-friendly corporate cultures – User-centric approaches, prototyping and iterative procedural models – Design thinking – Agility and innovation at the Bundesbank – Case studies on agile methods and innovation

Module component of V6	Advanced analytics
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V6-2
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 60%, English-language content 20%, legal content 0%
ECTS credits	4 ECTS credits
Academic workload	112.5 hours, of which 52.5 contact hours (70x45-minute teaching sessions) and 60 hours of independent study
Teaching methods	Classes, independent study, group work
Lecturer responsible for the module	Professor Giselher Pankratz
Academic objectives	<p>Students</p> <ul style="list-style-type: none"> – will learn to understand the issues and challenges of data management at the Bundesbank and be able to describe solutions that address technical requirements – will become familiar with data preparation, data analysis and machine learning procedures that are used throughout the Bundesbank and be able to apply them independently – will be able to weigh up the strengths and weaknesses of the various procedures – will be able to apply tools relevant in practice/at a later date in order to solve technical problems
Preliminary reading	<p>Géron, Aurélien: Praxiseinstieg Machine Learning mit Scikit-Learn, Keras und TensorFlow. Konzepte, Tools und Techniken für intelligente Systeme. 2nd edition. Heidelberg, 2020.</p> <p>Haneke U, Trahasch S, Zimmer M, Felden C: Data Science: Grundlagen, Architekturen und Anwendungen. Heidelberg: dpunkt, latest edition.</p> <p>von der Hude, M: Predictive Analytics und Data Mining. Eine Einführung mit R. Wiesbaden, 2020.</p> <p>Matthes E, Gronau V: Python Crashkurs: Eine praktische, projektbasierte Programmierführung. Heidelberg: dpunkt.verlag, latest edition.</p> <p>Nguyen CN, Zeigermann O: Machine Learning – kurz & gut: Eine Einführung mit Python, Pandas und Scikit-Learn. Heidelberg: O'Reilly, latest edition.</p> <p>Russell, S; Norvig, P.: Artificial Intelligence: A Modern Approach. 4th edition, Pearson 2020. Artificial Intelligence: A Modern Approach, latest edition.</p> <p>Stahl R, Staab P: Die Vermessung des Datenuniversums: Datenintegration mithilfe des Statistikstandards SDMX. Berlin: Springer Vieweg, latest edition.</p>
V6-2a	Data management (20 TS)
Syllabus	<ul style="list-style-type: none"> – Data strategy and data governance at the Bundesbank – Data lifecycle – Data models – Data architecture – Data preparation (data wrangling) – Introduction to Python – Data visualisation
V6-2b	Quantitative methods of data science and their application (50 TS)
	<ul style="list-style-type: none"> – Introduction to machine learning and artificial neural networks – Supervised learning procedures – Unsupervised learning procedures – Other machine learning styles and procedures: reinforcement learning, deep learning, neural networks, text mining – Practical exercises with use cases, exercises, frameworks and tools (Python, low code tools) – Presenting data and analyses appropriately: data visualisation and storytelling

Module component of V6	Use cases
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	V6-3
Academic level of the module	In-depth study 1
Type	Module component; quantitative content 40%, English-language content 50%, legal content 0%
ECTS credits	2 ECTS credits
Academic workload	62 hours, of which 27 contact hours (36x45-minute teaching sessions) and 35 hours of independent study
Teaching methods	Classes, independent study, group work, project work and laboratory projects
Lecturer responsible for the module	Professor Matthias Goeken
Academic objectives	<p>Students</p> <ul style="list-style-type: none"> – will learn examples of successful data science/machine learning and AI applications in business and administration – will gain initial practical experience in applying advanced analytical techniques – will learn the criteria for assessing the suitability of individual procedures for different practical analysis situations – will be able to apply this experience and knowledge to their own analyses and during periods of practical training – will be able to assess the economic and social risks as well as the opportunities of data-driven decision-making in a differentiated manner
Preliminary reading	<p>Buxmann P, Schmidt H (eds.): Künstliche Intelligenz: Mit Algorithmen zum wirtschaftlichen Erfolg. Berlin, Heidelberg: Springer Berlin Heidelberg, latest edition. See also the information for the module components V6-1 and V6-2.</p>
Syllabus	<p>Project work, excursions and laboratory projects on digital transformation, machine learning, big data and artificial intelligence; in the form of lectures as well as in innovative formats such as “thinkathons” or “hackathons”, planned and implemented in cooperation with interested areas of the Bank.</p> <p>Ongoing projects from various directorates general are presented and combined with exercises, thus linking theory, application and practical implementation. Examples of projects:</p> <ul style="list-style-type: none"> – Innovate@HDB – improving the study experience. A design thinking group project (Dan Hasse, Digital Office) – “Thinkathon” lasting several days at Innowerk, the Deutsche Bundesbank’s innovation ecosystem in Frankfurt, in the Trianon building – News analytics – evaluating social media posts for banking supervision (Dr Stotz/Godini, B44) – Market intelligence – using data science to analyse the capital market (Dr Zajonz, M) – Natural language processing (Dr Rumpf/Dr Sahamie, IT/Rc) – To buy or not to buy? The stock market participation puzzle, solved using machine learning

2.4 In-depth study 2

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
P1	Foundation course						P1	Advanced study						P2	In-depth study 1					Practical study 3		In-depth study 2		Bachelor's thesis	Practical study 4			Paper/oral exam							



Modules (elective modules for Bundesbank students/mandatory and elective modules for BaFin students)	ECTS ⁵ credits	Contact hours (45-minute teaching sessions)	Workload (hours)	Form of examination (percentage in English)
Module group 1: Case studies on core business areas of central banks and supervisory authorities				
W1: Case studies on monetary policy and financial stability (Elective module)	5	88	150	Presentation (100)
W2: Case studies on financial supervision (Elective module for Bundesbank students/mandatory module for BaFin students)	5	88	150	Seminar paper (100)
W3: Case studies on payment transactions and financial market infrastructure (Elective module)	5	88	150	Presentation
Module group 2: Key methods for employees in central banks and supervisory authorities				
W4: Corporate law, contract practice and contract management (Elective module)	5	88	150	Presentation
W5: Financial econometrics (Elective module for Bundesbank students/mandatory module for BaFin students)	5	88	150	Oral examination (30)
W6: Process and project management (Elective module)	5	88	150	Seminar paper
Total: 4 out of 6 modules	20	352	600	4 module exams

⁵ Credits under the European Credit Transfer and Accumulation System. According to Section 3(3) of the curriculum, one ECTS credit corresponds to 30 hours' workload.

Module	Case studies on monetary policy and financial stability
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	W1
Academic level of the module	In-depth study 2
Type	Elective module from the “Core business areas” module group; quantitative content 50%, English-language content 80%, legal content 10%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 66 contact hours (88x45-minute teaching sessions) and 84 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Teaching methods	Classes, independent study, group work
Lecturer responsible for the module	Professor Tobias Körner
Examination date	During the study stage
Form of examination (percentage in English)	Presentation (100)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV “Examination grading”) and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector’s annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	4 months
Preparation	To prepare for participation in module W1, students are advised to study the recommended preliminary reading texts.
Prerequisites	A5 Monetary economics V2 Analysis of financial statements and financial instruments Students are also advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. Furthermore, the knowledge gained is applicable in the Bundesbank’s DGs B, F, M, ÖB, Vo and Z, at BaFin and other central banks.
Connection to other modules	In addition to the preceding modules, there are connections to modules V3, W2, W3 and W5.
Academic objectives	Students will learn about the framework conditions and current developments in monetary and macroprudential policy in Germany and Europe. They will be in a position to analyse current developments using underlying economic models and statistical methods. They will gain an understanding of the historical, economic and political-economic reasons for the current institutional framework of European monetary union. They will learn how to assess the importance of systemic risk in the context of current financial stability reports and historical financial crises. In addition, they will be able to establish links between monetary policy and macroprudential policy as well as to other central bank core activities, such as banking supervision and payments.
Preliminary reading	De Grauwe, Paul, Economics of Monetary Union, Oxford University Press, latest edition. Financial stability reports and regular publications of selected central banks, IMF, BIS. Kruse, Oliver and Tobias Körner (eds.), Einführung in die Finanzstabilität, Schäffer-Poeschel, 1st edition, 2022.
W1a	Case studies on monetary policy
Syllabus	<ul style="list-style-type: none"> – Economics of European monetary union – Selected topics in applied monetary policy – Current developments in the monetary policy of the euro area

W1b	Financial stability: analysis and policy
Syllabus	<ul style="list-style-type: none">– Surveillance framework for macroprudential analysis– Data-driven tools and applications for the analysis of systemic risk– Policy framework in Germany and the euro area
W1c	Case studies on financial stability
Syllabus	<ul style="list-style-type: none">– Case studies of selected financial crises– Recent financial stability developments in Germany and the euro area

Module	Case studies on financial supervision
Degree programme	Bachelor of Science, "Central Banking" degree programme
Code	W2
Academic level of the module	In-depth study 2
Type	Elective module for Bundesbank students/mandatory module for BaFin students from the "Core business areas" module group; quantitative content 80%, English-language content 40%, legal content 80%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 66 contact hours (88x45-minute teaching sessions) and 84 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats; exercises, case studies
Teaching methods	Classes, independent study, group work
Lecturer responsible for the module	Professor Andreas Igl
Examination date	During the study stage
Form of examination (percentage in English)	Seminar paper (100)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	4 months
Preparation	To prepare for participation in module W2, students are advised to study the recommended preliminary reading texts.
Prerequisites	G3 Introduction to the banking industry A4 Credit and banking supervision V1 Bank and central bank management V2 Analysis of financial statements and financial instruments V5 Banking, securities and insurance supervision (recommended) Students are also advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. Furthermore, the knowledge gained is applicable in the Bundesbank's DGs B, F, M, ÖB, S, Vo and Z as well as in the regional offices, at BaFin and at other central banks.
Connection to other modules	Besides the preceding modules, the module is most closely related to module W5.
Academic objectives	Students will gain an in-depth insight into the various areas of work involved in ongoing supervision and on-site inspections. In addition to cooperation with BaFin with regard to less significant institutions (LSIs), the corresponding approaches in the SSM with the involvement of ECB banking supervisors will be covered in individual case studies. The case studies' content will undergo constant adjustment in line with current developments, with the involvement of the lecturer responsible for the module. At present, the case studies have the following academic objectives: Students will learn about an approval procedure for an internal risk model (e.g. IRBA, AMA or market risk model) at a group of institutions with cross-border activities in the European Union, and will be able to identify the associated coordination and valuation issues. They will learn how to incorporate findings made during the procedure into an overall assessment and to decide on whether the institution should be allowed to apply the internal risk model for supervisory purposes. Furthermore, students will become familiar with inspection reports (in particular pursuant to Section 44 of the Banking Act) and will evaluate these reports from a risk perspective. They will use information obtained in the analysis to carry out valuations and make recommendations for action and will

	<p>identify those areas where additional information may be required. In addition, students will gain an overview of the supervisory review and evaluation process (SREP) which must be applied at least once a year to each institution or group of institutions. They will learn to recognise that their overall conclusion in this process must be made in proportion to the size and complexity of the institution and develop an awareness of the importance of dialogue (e.g. via supervisory meetings) with the institution. Moreover, they will learn which topics require particular attention (e.g. stress tests, covering concentration risks) and which banking supervision tools are useful in implementing the SREP (e.g. risk profile).</p>
Preliminary reading	<p>Bieg, H./Krämer G./Waschbusch, G./Igl, A.: Bankenaufsicht in Theorie und Praxis, 5th edition. Buchmüller, P./Igl, A./Neus, W.: Einführung in die Bankenregulierung: Darstellung wesentlicher aufsichtsrechtlicher Vorgaben, latest edition. Anonymised extracts from inspection reports on internal risk models (in particular for groups of institutions with cross-border activities) Anonymised Bundesbank evaluation of an audited annual financial statement and of a report on an inspection pursuant to Section 44 of the Banking Act Current project files, inspection concepts and guidelines for on-site inspections; current publications by the Bundesbank's DGs and the ECB</p>
W2a	Case studies on ongoing supervision
Syllabus	<ul style="list-style-type: none"> - Implementation of the SREP at an SI and LSI; BAIT and the examination of IT risks; use of risk profiles; leasing, factoring, payment services; international cooperation in cross-border groups
W2b	Case studies on on-site inspections
Syllabus	<ul style="list-style-type: none"> - Risk-oriented analysis and evaluation of financial statement audit reports and inspection reports; business model analysis in the SREP context; testing of PD/LGD models; interest rate risk (economics, requirements, measurement & management)
W2c	Case studies on strategic issues relating to banking regulation and topical issues
Syllabus	<ul style="list-style-type: none"> - Crisis management; interlinkage of commercial and supervisory law; current developments in the ICAAP and the ILAAP

Module	Case studies on payment and financial market infrastructure
Degree programme	Bachelor of Science, "Central Banking" degree programme
Code	W3
Academic level of the module	In-depth study 2
Type	Elective module from the "Core business areas" module group; quantitative content 25%, English-language content 10%, legal content 20%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 66 contact hours (88x45-minute teaching sessions) and 84 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Teaching methods	Classes, independent study, group work
Lecturer responsible for the module	Professor Giseller Pankratz
Examination date	During the study stage
Form of examination (percentage in English)	Presentation
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	4 months
Preparation	To prepare for participation in module W3, students are advised to study the recommended preliminary reading texts.
Prerequisites	A3 Payment transactions: The following knowledge and skills imparted in modules G3 and A3 are required: A basic understanding of payment systems and financial market infrastructures Knowledge of the participants and processes involved in cash payments and cash logistics. Students are also advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. Furthermore, the knowledge gained is applicable in the Bundesbank's DGs B, F, H, M, Vo and Z, as well as at BaFin and other central banks and commercial banks.
Connection to other modules	W1 Case studies on monetary policy and financial stability
(Potentially) followed by	---
Academic objectives	Students will be able to assess the monetary policy aspects of payment transactions and analyse the links between payment transactions, securities settlement and financial stability. They will be able to assess more recent developments in payment transactions and financial market infrastructures and to represent the Bundesbank or BaFin in working groups appropriately.
Preliminary reading	Berndsen R.J.: Financial Market Infrastructures and Payments, Veghel, latest edition. ECB (ed.: Kokkola, T.): The Payment System, Frankfurt, 2010. Bundesbank and ECB publications

W3a	Financial market infrastructure
Syllabus	<ul style="list-style-type: none">– Microfoundations of financial market infrastructures– Network theory applied to the settlement of financial derivatives via central counterparties– Innovative instruments and methods for transferring financial assets– European and global projects for the further development of financial market infrastructures– Impact of financial sector regulation on financial market infrastructures and central bank money creation
W3b	Current issues relating to cash payments
Syllabus	<ul style="list-style-type: none">– The changing importance of cash– Digitalisation and automation in cash payments– Analyses of processes and structures of cash payments and cash logistics– Important national and European projects in the field of cash payments

Module	Corporate law, contract practice and contract management
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	W4
Academic level of the module	In-depth study 2
Type	Elective module from the "Methods" module group; quantitative content 0%, English-language content 10%, legal content 90%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 66 contact hours (88x45-minute teaching sessions) and 84 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Teaching methods	Classes, group work, and independent study
Lecturer responsible for the module	Professor André Alfes
Examination date	During the study stage
Form of examination (percentage in English)	Presentation
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	4 months
Preparation	To prepare for participation in module W4, students are advised to study the recommended preliminary reading texts.
Prerequisites	G4 Introduction to the legal system: Basic Law, Civil Code and Commercial Code A4 Credit and banking supervision Students are also advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. Furthermore, the knowledge gained is applicable in the Bundesbank's DGs B, M and Z, as well as at BaFin and other central banks.
Connection to other modules	
(Potentially) followed by	---
Academic objectives	Students will be able to assess the main types of enterprise and their economic and legal advantages and disadvantages with respect to formation, organisation, representation and liability. Students will be able to apply the material taught to the areas of business relationships with monetary policy counterparties, banking supervision and payment transactions. Students will acquire initial experience in planning, drawing up and negotiating contracts. Students will gain an overview of the different procedures for enforcing claims and be able to develop recommendations for action in specific circumstances. In the area of financial contracts, they will be able to identify, assess and influence the key legal and economic points in contractual documentation.
Preliminary reading	Grunewald B., Gesellschaftsrecht, latest edition. Bühring-Uhle, C. / Eidenmüller, H. / Nelle, A.: Verhandlungsmanagement, latest edition. Heussen, B. / Pischel, G. / Curschmann, J.: Handbuch Vertragsverhandlung und Vertragsmanagement, latest edition. Musielak H.-J.: Grundkurs ZPO, latest edition. Foerste, Insolvenzrecht, latest edition.

W4a	Corporate law
Syllabus	<ul style="list-style-type: none"> – Partnerships (civil-law associations, general partnerships, EEIGs, limited partnerships in which private limited parties are partners, silent partnerships) – Corporations (public limited companies, SEs, commercial partnerships limited by shares, private limited companies) and registered cooperative societies – Legal form of mergers – Taxation of companies
W4b	Contract management
Syllabus	<ul style="list-style-type: none"> – Contract planning and drafting – Contract negotiations and contract conclusion techniques
W4c	Legal action in civil proceedings, compulsory enforcement and insolvency
Syllabus	<ul style="list-style-type: none"> – Introduction to procedural enforcement of claims in civil proceedings – Introduction to compulsory enforcement – Introduction to insolvency – Financial collateral in compulsory enforcement and insolvency
W4d	Case studies on financial contracts
Syllabus	<ul style="list-style-type: none"> – Contractual documentation of financial transactions <ul style="list-style-type: none"> – Derivatives contracts – The Bundesbank's repo contracts – Monetary policy loan agreements – Contractual documentation of projects <ul style="list-style-type: none"> – TARGET2-Securities (T2S) – Common Eurosystem Pricing Hub (CEPH) – Common Credit Assessment System (CoCAS)

Module	Financial econometrics
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	W5
Academic level of the module	In-depth study 2
Type	Elective module for Bundesbank students/mandatory module for BaFin students from the "Methods" module group; quantitative content 100%, English-language content 30%, legal content 0%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 66 contact hours (88x45-minute teaching sessions) and 84 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats
Teaching methods	Classes, independent study, group work, case studies (partly using PCs), project work
Lecturer responsible for the module	Professor Christoph Schmidhammer
Examination date	During the study stage
Form of examination (percentage in English)	Oral examination (30)
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	4 months
Preparation	To prepare for participation in module W5, students are advised to study the recommended preliminary reading texts.
Prerequisites	A1 Quantitative methods V1-1 Bank management and risk management V2 Analysis of financial statements and financial instruments Students are also advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. Furthermore, the knowledge gained is applicable in many of the Bundesbank's DGs, but especially in S, B, RC and M, as well as at BaFin and other central banks.
Connection to other modules	
(Potentially) followed by	---
Academic objectives	Students will <ul style="list-style-type: none"> – acquire basic knowledge about data structures and be able to process and manage datasets using spreadsheet programs (Excel) and apply the programming language R for coding; – acquire basic knowledge of data sources at the Bundesbank; – have a theoretical understanding of econometric model structures and their estimation methods; – acquire basic econometric knowledge; – be able to analyse econometric problems in the financial sector and economics and place them in the theoretical context; – be able to carry out empirical analyses independently using software by means of descriptive and inductive statistical methods.
Preliminary reading	Cameron, Trivedi, Microeconometrics using stata, latest edition, stata press. Crawley 2012, The R book, 2nd edition, Wiley. Dougherty C.: Introduction to Econometrics, latest edition.

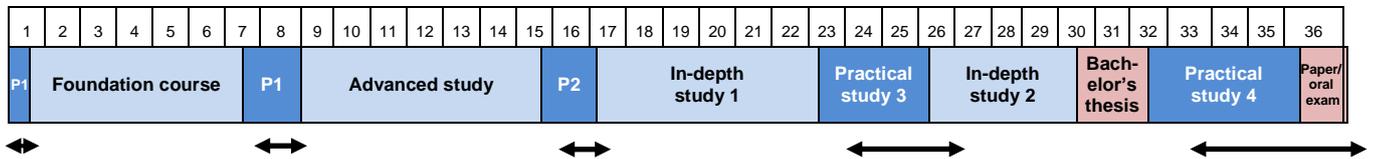
	<p>George, E.P. et al.: Time Series Analysis, latest edition. Pindyck, R.S. et al.: Econometric Models and Economic Forecasts, latest edition. Rösch D.: Understanding Statistics and Probability: An Introduction to Methods, Techniques and Computer Applications, 2017.</p>
<p>Syllabus</p>	<p>Working with (extensive) financial data & data sources</p> <ul style="list-style-type: none"> - Introduction to data structures - Data sources at the Bundesbank (including Refinitiv Workspace) - Programming in the statistical software R <p>Econometric methods</p> <p>Multiple regression</p> <ul style="list-style-type: none"> - OLS estimator, BLUE characteristic - Statistical tests: t-test, F-test, Goldfeldt-Quandt test, White test, Durbin Watson test, Jarque-Bera test - Robust estimation procedures (GLS, FGLS, ARCH) - Adjustments for non-linearity - Non-metric exogenous variables: dummy and interaction terms - Endogeneity <p>Binary regression</p> <ul style="list-style-type: none"> - Maximum likelihood estimator - Logit & probit transformation <p>Modelling and data cases</p> <ul style="list-style-type: none"> - Modelling research-related problems in the areas of market microstructure (complete research-related analysis), ESG, credit risk and economics (please expand on all content) - Independent use of spreadsheet programs (Excel), statistical software (R, EViews and/or stata) - Interpretation of estimation results in the case context

Module	Process and project management
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	W6
Academic level of the module	In-depth study 2
Type	Elective module from the "Methods" module group; quantitative content 50%, English-language content 10%, legal content 0%
ECTS credits	5 ECTS credits
Academic workload	150 hours, of which 66 contact hours (88x45-minute teaching sessions) and 84 hours of independent study
Teaching and learning formats	In-person classes, online classes, hybrid teaching formats; lectures, exercises, case studies
Teaching methods	Classes (also using PCs), independent study, group work
Lecturer responsible for the module	Professor Norbert Frick
Examination date	During the study stage
Form of examination (percentage in English)	Seminar paper
Grading	Exams are graded in line with the rules of the Regulation on the Preparatory Training Scheme for the Upper Intermediate Service at the Deutsche Bundesbank (Article 22 of the GBankDVDV "Examination grading") and the curriculum (Section 3). Information on grading as well as failure and drop-out rates can be found in the Rector's annual report. This information is available at https://www.hochschule-bundesbank.de/hochschule-en .
Frequency	The mandatory module is generally offered twice a year.
Length of the module	4 months
Preparation	To prepare for participation in module W6, students are advised to study the recommended preliminary reading texts.
Prerequisites	A1 Quantitative methods; knowledge already acquired on application systems, digital transformation and integration, information management and project management. Existing knowledge of data and process modelling and data analysis is deepened and applied. A4, V1 and/or V5: in-depth understanding of business processes in banking and insurance. V1 Bank and central bank management Students are also advised to study the recommended preliminary reading texts.
Applicability of the module	The module counts towards other relevant degree programmes. The knowledge gained is applicable to activities in all the Bundesbank's DGs, as well as at BaFin and other central banks.
Connection to other modules	
(Potentially) followed by	---
Academic objectives	Students will be familiar with internal approaches to and market standards for project management as well as methods and procedures, and will be able to place and apply them accordingly. They will be capable of formulating the objective, content and scope of a project and be able to draw up a general plan (costs, timeframe, staff, risks). They will be able to apply IT support tools in the context of project management. In addition, students will recognise that the human aspect of projects is a key factor for success and will complete projects in working groups. Students will become familiar with basic aspects (objectives, approaches, problems) of process management and be able to model processes. They will work with a process modelling tool, using it to create operable process models. They will also be able to analyse and document moderately difficult problems using the right models and techniques as part of the system analysis.

	They will be capable of selecting and applying appropriate models and presentation techniques for simple problems as part of the system design.
Preliminary reading	<p>Sommerville I.: Software Engineering, latest edition. Krallmann H. et al. (eds.): Systemanalyse im Unternehmen, latest edition. Schmelzer H.J. et al.: Geschäftsprozessmanagement in der Praxis, latest edition. Deutsche Bundesbank: Projektleitfaden. Schelle H., Ottmann R., Pfeiffer A.: Projekt Manager, GPM Deutsche Gesellschaft für Projektmanagement, latest edition. Becker J.; Mathas C.; Winkelmann A.: Geschäftsprozessmanagement. Heidelberg, latest edition. Becker J., Kugeler M., Rosemann M. (eds.): Prozessmanagement. Ein Leitfaden zur prozessorientierten Organisationsgestaltung. Heidelberg, latest edition. Gadatsch A.: Grundkurs Geschäftsprozess-Management. Methoden und Werkzeuge für die IT-Praxis: Eine Einführung für Studenten und Praktiker. Wiesbaden, latest edition.</p>
W6a	Project management
Syllabus	<ul style="list-style-type: none"> – Project management at the Deutsche Bundesbank – Project structuring, planning, controlling and implementation, risk management, quality management, conflict management and team development – Case studies
W6b	Process management
Syllabus	<ul style="list-style-type: none"> – Business processes, business process management – Process modelling using graphical modelling languages (e.g. EPK) – Analysis and optimisation of business processes, business process re-engineering – Case studies
W6c	System analysis and software engineering
Syllabus	<ul style="list-style-type: none"> – Requirements management, requirements engineering – Textual and conceptual techniques for specification of requirements – Dealing with requirements in agile projects – Prototyping techniques (mockups and wire frames), use of low-code/no-code environments – Case studies and small group projects

3 Practical studies

3.1 Practical studies for Bundesbank students



Code Module	Study stage	ECTS credits	Duration	Type	Examination
P1-1 Overview of the Bundesbank including interdisciplinary functions part 1 (Central Office of the Bundesbank)	Practical study 1 (part 1)	See part 2	Around 2 months (part 1: 4-9 days)	Mandatory module	In part 2
P1-2 Overview of the Bundesbank including interdisciplinary functions part 2	Practical study 1 (part 2)	7			For each module students must take one examination consisting of
P2 Organisation and tasks of a Bundesbank branch	Practical study 2	7	Around 7 weeks	Mandatory module	a performance evaluation (25%) and
P3A Organisation and tasks of banking supervision	Practical study 3	7	Around 7 weeks	Mandatory module	
P3B Organisation and tasks of areas with operational, operative monetary policy and financial stability functions		7	Around 7 weeks	Mandatory module	an examination (75%) . The different forms of examination are: <ul style="list-style-type: none"> ○ Internship report ○ Completing other practical tasks typically performed in the Upper Intermediate Service ○ Presentation ○ Paper ○ Oral examination
P4A Organisation and tasks of areas with operational, operative monetary policy and financial stability functions	Practical study 4 Three of six elective modules	8	Around 7 weeks	Elective module	
P4B Organisation and tasks of areas with interdisciplinary functions		8	Around 7 weeks	Elective module	
P4C Internship at another suitable institution in Germany or abroad		8	Around 7 weeks	Elective module	
P4D Organisation and tasks of banking supervision		8	Around 7 weeks	Elective module	
P4E Professional specialisation at the Bundesbank		8	Around 7 weeks	Elective module	
P4F Organisation and tasks of a Bundesbank branch		8	Around 7 weeks	Elective module	

An overview of the main content-related links between theoretical and practical studies can be found on the following page.

Main content-related links between theoretical and practical studies

The overview shows the two-way link between the main contents of the practical modules and those of the theoretical modules. The wide range of business units covered by the practical modules requires a broad theoretical knowledge base, which is covered by the theoretical modules. There is a dovetailing of modules throughout the programme. Knowledge gained from the theoretical modules is required during the practical placements, and by the same token, expertise acquired during a practical placement also contributes to students' success in the theoretical modules.

Theoretical modules	Practical modules (Bundesbank students)				
	P1/P4B Overview Bundesbank, Interdisciplinary functions	P2/P4F Branches	P3A/P4D Banking supervision	P3B/P4A Operational, operative monetary policy and financial stability functions	P4C/P4E Professional specialisation/exter- nal institution
G1: Methodological foundations	X	X	X	Cannot be specified (due to the heterogeneity of the recruiting authorities accepting students)	Cannot be specified (due to the heterogeneity of the recruiting authorities accepting students)
G2: Introduction to business administration	X	X	X		
G3: Introduction to the banking industry	X	X	X		
G4: Introduction to the legal system: Basic Law, Civil Code and Commercial Code	X	X	X		
G5: Principles of economics	O				
A1: Quantitative methods	X		X		
A2: Business administration: deepening of knowledge	O				
A3: Payment transactions		X			
A4: Credit and banking supervision			X		
A5: Monetary economics					
V1: Bank and central bank management	X		X		
V2: Analysis of financial statements and financial instruments	X		X		
V3: Financial markets and international economics			X		
V4: Organisation, management and human resources management	X	X			
V5: Banking, securities and insurance supervision	O		X		
V6: Digital transformation and advanced analytics	X	O	O		
W1: Case studies on monetary policy and financial stability			X		
W2: Case studies on financial supervision	O		X		
W3: Case studies on payment transactions and financial market infrastructure	O	X			
W4: Corporate law, contract practice and contract management	X		O		
W5: Financial econometrics	O		X		
W6: Process and project management	X		O		

X Particularly important links O Links of minor importance

Module	Overview of the Bundesbank – part 1
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P1-1
Academic level of the module	Prior to the foundation course
Type	Mandatory module; quantitative content 0%, English-language content 0%, legal content 20%
ECTS credits	See P1-2
Duration	4 to 9 working days
Examination date	See P1-2
Form of examination	See P1-2
Teaching methods	Classes, assignments, independent study
Lecturer responsible for the module	Head tutor
Prerequisites	---
(Potentially) followed by	G3 Introduction to the banking industry
Preliminary reading	Die Deutsche Bundesbank – Aufgabenfelder, rechtlicher Rahmen, Geschichte. Special publication by the Deutsche Bundesbank. Frankfurt am Main, 2006. Various notices and training materials.
Objectives of professional competence	The students will learn about the tasks, and core business areas of the Bundesbank and its role within the ESCB. They will understand their legal status as civil servants. They will also be familiar with basic rules and regulations, procedures and internal rules and regulations. They will gain an overview of the organisation, structure and tasks of their recruiting authority and, where applicable, how they are integrated into the system of the Federal authorities. They will understand the provisions of the General Equal Treatment Act (<i>Allgemeines Gleichbehandlungsgesetz</i>) and know the contact persons on the staff representation committees. They will gain initial experience using the Bundesbank's standard software.
Syllabus	<ul style="list-style-type: none"> - Course of study including rules and regulations - Organisation and tasks of the Bundesbank and the European System of Central Banks (ESCB) - Core business areas of the Bundesbank - Legal status of civil servants - The General Equal Treatment Act - Information technology at the Bundesbank - Corruption prevention

Module	Overview of the Bundesbank including interdisciplinary functions – part 2 (Internal and branch operations of a regional office, DGs C, IT, K, P, Rv, Ve, ÖB, R, Secretariat for European Affairs, Procurement Centre, service centres, Construction Management)
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P1-2
Academic level of the module	Part of practical study 1, i.e. following the foundation course
Type	Mandatory module; quantitative content 10%, English-language content 0%, legal content 50%
ECTS credits	7 ECTS credits; including part 1 of practical study 1
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practice-oriented thinking, social conduct, organisational skills, communication skills). The module examination refers to parts 1 and 2 of practical study 1.
Teaching methods	Tutoring sessions with practical studies tutors and training staff, shadowing activities at individual posts, practical assignment, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	P1-1
(Potentially) followed by	Cannot be specified (due to the heterogeneity of acquired knowledge)
Preliminary reading	Bundesbank: internal rules and regulations. Recent publications by the DGs. Recent publications by BaFin. Relevant legal sources.
P1-2a, P1-2b, P1-2c Objectives of professional competence for in-house operations of a regional office	Students will acquire a general understanding of the key tasks and processes at a regional office and, where applicable, a branch. They will gain an overview of the regional office's relationships with the various DGs of the Bundesbank and with the branches attached to it. Students will be familiar with the key fields of activity in the Upper Intermediate Service at the regional offices and the branches and will be able to describe typical tasks. They will also learn the fundamentals of human resources management and the supervision of operations at the respective units and be familiar with the relevant internal rules and regulations. During their time at a regional office, students may spend between two and three weeks at a branch (syllabus of P1-2c).
P1-2a Syllabus for the Human Resources and Organisation Sections at a regional office	Human Resources - Staff relations - Internal staff services - Remuneration matters Organisation - Overview of the structure and tasks of a regional office - General operational organisation - Construction matters, security, protection of property - Organising cash and cashless payments/account management - Division-wide controlling, operational statistics
P1-2b Syllabus for the Administration Section at a regional office	- Commercial facility management - Management of office and residential buildings - Overview of other areas
P1-2c	- Introduction to cash payment operations

Syllabus for in-house operations of a branch	<ul style="list-style-type: none"> - Introduction to the creation of teams and posts - Introduction to CMS
P1-2d	tba
P1-2e Objectives of professional competence for DG C (including the Service Centre for Administrative Accounting, Asset Accounting and Master Data Administration and the Service Centre for Cost Accounting Data Provision)	Students will learn about the key tasks and processes in DG Controlling. They will acquire an overview of the various activities of the Upper Intermediate Service in DG Controlling and become familiar with the most important controlling instruments used by the Bundesbank and the Eurosystem (e.g. strategic planning, cost accounting, general accounting, HR standards, standard cost accounting, organisational consulting and analysis, job evaluation).
P1-2e Syllabus for DG C (including the Service Centre for Administrative Accounting, Asset Accounting and Master Data Administration and the Service Centre for Cost Accounting Data Provision)	<ul style="list-style-type: none"> - Structure and tasks of DG C - Controlling instruments and processes - Organisational methods and project work - Accounting structure at the Bundesbank
P1-2f Objectives of professional competence for DG IT	Students will gain an overview of the key tasks in DG Information Technology, the services it provides and the Bundesbank's IT infrastructure. They will assist in IT projects and apply project and process management methods. They will recognise the significance of IT support for business processes and the necessity of cooperating closely with the business units.
P1-2f Syllabus for DG IT	<ul style="list-style-type: none"> - Structure and tasks of DG IT - Processes (in particular procurements and project planning) - Methods for IT project work; involvement in IT projects
P1-2g Objectives of professional competence for DG K (including the Regional President's Offices)	Students will gain an overview of the key tasks and processes in DG Communications (including the Regional Presidents' Offices) and will help design and implement press and public relations projects, organise and carry out public relations events or design bank-internal communication media (in-house magazine, intranet). They will learn about the most important communications interfaces within the Bank and the importance of properly functioning external and internal communications procedures for the Bundesbank's image. They will be able to implement ideas and editorial contributions with technical support.
P1-2g Syllabus for DG K (including the Regional President's Offices)	<ul style="list-style-type: none"> - Structure and tasks of DG K (including the Regional Presidents' Offices) - Methods and techniques of external and internal communication - Processes (in particular organisation and implementation of internal and external educational activities) - Methods of information management (library, documentation/research, archives) - Organisational methods and project work
P1-2g Objectives of professional competence for DG P (including the Service Centre for Staff Loans and the Service Centre for Travel and Relocation Expenses and Family Separation Allowance)	Students will gain an overview of the key tasks and processes in DG Human Resources and will primarily assist in implementing them in the areas of human resources management and/or internal staff services. Students will learn about the activities of the Upper Intermediate Service and become familiar with basic methods and typical tasks relating to HR activities. In addition, they will be able to deal with legal issues relating to HR activities (e.g. labour law, collective bargaining law).
P1-2g Syllabus for DG P	<ul style="list-style-type: none"> - Structure and tasks of DG P - Human resources legal framework

(including the Service Centre for Staff Loans and the Service Centre for Travel and Relocation Expenses and Family Separation Allowance)	<ul style="list-style-type: none"> - Human resources management instruments and processes including interfaces with other business units
P1-2i Objectives of professional competence for DG Rv	Students will gain an overview of the key tasks and processes in DG Audit and will assist in carrying them out. They will become familiar with relevant audit standards and, where possible, assist in planning, implementing, evaluating, reporting and documenting audit activities.
P1-2i Syllabus for DG Rv	<ul style="list-style-type: none"> - Structure and tasks of DG Rv - Audit methods - Where possible, assistance in audit activities (in particular planning, implementation, evaluation, reporting or documentation)
P1-2j Objectives of professional competence for DG Ve (including the Service Centre for Housing Administration and Holiday Homes)	Students will gain an overview of the key tasks and processes in DG Administration and will assist in carrying them out. They will assist in facility and property management activities or those in the area of logistics management.
P1-2j Syllabus for DG Ve (including the Service Centre for Housing Administration and Holiday Homes)	<ul style="list-style-type: none"> - Structure and tasks of DG Ve including the respective service centre - Processes (in particular project and logistics planning) - Assistance in project work - Where possible, assistance in compiling instruction manuals
P1-2k Objectives of professional competence for DG ÖB	Students will gain an overview of the key tasks and processes in DG Economic Education and will assist in implementing these in the areas of education, training, international central bank dialogue, the University of Applied Sciences, economic education, information management and the Money Museum. Students will learn about the activities of the Upper Intermediate Service and will be familiar with basic methods of tasks typically performed in the DG. In addition, they will be able to deal with legal issues relating to internal and external educational tasks and the specific career path regulations. Students will complete tasks relating to international central bank dialogue and organising and carrying out education, training and economic education seminars. They will take on assignments at the Money Museum and perform tasks in the archives and the library.
P1-2k Syllabus for DG ÖB	<ul style="list-style-type: none"> - Structure and tasks of DG ÖB - Processes (in particular organisation and implementation of internal and external educational activities) - Methods of information management (library, documentation/research, archives) - Organisational methods and project work
P1-2l Objectives of professional competence for DG R	Students will obtain an overview of the tasks and the structure of DG Legal Services and develop an awareness for legal issues (identifying potential legal problems) as well as an ability to solve them (necessity for the involvement of DG R).
P1-2l Syllabus for DG R (including the Service Centre for Financial Sanctions)	<ul style="list-style-type: none"> - Structure and tasks of DG R - Processes (e.g. involving DG R in projects/tasks of other DGs, organising and carrying out preparatory work for meetings of the ECB Governing Council and the Legal Committee) - Where possible, case studies/workshops
P1-2m Objectives of professional competence for the Secretariat for European Affairs	Students will become acquainted with the key tasks and processes in the Secretariat for European Affairs and will assist in carrying them out. They will recognise the importance of close cooperation with the business units.
P1-2m	<ul style="list-style-type: none"> - Structure and tasks of the Secretariat for European Affairs - Processes (in particular meeting preparations, written procedures)

Syllabus for the Secretariat for European Affairs	<ul style="list-style-type: none"> - Assistance in establishing procedures in the EURAS database - Where possible, evaluations of business unit-specific projects/tests
P1-2n Objectives of professional competence for the Procurement Centre	Students will gain an overview of the key tasks and processes in the Procurement Centre and will assist in carrying them out. They will contribute to the completion of tasks in the area of procurement.
P1-2n Syllabus of the Procurement Centre	<ul style="list-style-type: none"> - Structure and tasks of the Procurement Centre - Processes (in particular in the context of procurements) - Assistance in project work - Where possible, assistance in compiling instruction manuals
P1-2o Objectives of professional competence for Construction Management	Students will learn about the key tasks and processes in Construction Management. They will participate in the work undertaken by IT product managers and, where possible, in IT projects. Students will learn about the activities of the Upper Intermediate Service and will be familiar with functions typically performed in Construction Management.
P1-2o Syllabus for Construction Management	<ul style="list-style-type: none"> - Structure and tasks of Construction Management - Processes (standard cost account planning for Construction Management and IT product management) - Where possible, assistance in project work - Where possible, assistance in compiling user manuals and process descriptions

Module	Organisation and tasks of a Bundesbank branch
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P2
Academic level of the module	Part of practical study 2, i.e. following advanced study
Type	Mandatory module; quantitative content 20%, English-language content 0%, legal content 50%
ECTS credits	7 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practice-oriented thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	A3 Payment transactions (as a rule)
(Potentially) followed by	V4 Organisation, management and human resources management W3 Case studies on payment and financial market infrastructure
Objectives of professional competence	Students will learn about the tasks and processes at a branch, particularly in the cash handling area. They will gain an overview of the cash cycle and the significance of cash payments for the Bundesbank and will participate in the activities of typical posts in the Upper Intermediate Service. Students will also grasp the fundamentals of human resources management and the supervision of operations at branches and will become familiar with the most important internal rules and regulations in the Bundesbank's cash handling area.
Preliminary reading	Deutsche Bundesbank: internal rules and regulations. Cash payment publications by the Bundesbank's DG Cash Management and the ECB.
Syllabus	Introduction to business operations and operational supervision <ul style="list-style-type: none"> - Division of tasks, operational structure - Criteria for the creation of teams/posts - Granting authorisation (e.g. key guide, CMS) - Observing operational procedures (e.g. working in areas under video surveillance, machine efficiency) - Explaining the internal control structure and compiling the operational supervision plan (e.g. charts on the structure of teams/inspections) - Analysis of potential weak points and corrective measures - Evaluations in CMS (CashEDI) - Measures in the event of discrepancies in the cash handling area, processing liability issues and reimbursement claims - Complex issues regarding account management (e.g. in the event of overdrafts, breach of account terms and conditions, death, insolvency, attachment) - Approving measures with an impact on expenditure Introduction to human resources management/administration <ul style="list-style-type: none"> - Managing human resources (staff planning, holiday planning, etc.) - The branch working time model, alternative working time models - Internal communication (including team leader and team meetings) - Introduction to human resources management (e.g. appraisals, employee feedback meetings, staff development, career guidance including further training, incentives) - Handling complex HR issues (welfare, health management including in-house integration management, sanctions, staff representation, equal opportunities) Introduction to security, site security, building management <ul style="list-style-type: none"> - Defining the concept of site security (including security provisions) - Liaising with local police; measures in the event of a robbery/emergency

	<ul style="list-style-type: none">- Occupational health and safety, workplace ergonomics and assessments of workplace hazards <p>Introduction to external contacts</p> <ul style="list-style-type: none">- Meetings with customers, cultivation of contacts with local businesses (e.g. CIT companies, credit institutions)- Events on counterfeit prevention (e.g. at schools, commercial enterprises, credit institutions)
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Module	Organisation and tasks of banking supervision (DG B, Banking and Financial Supervision Division of a regional office, BaFin)
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P3A
Academic level of the module	Part of practical study 3, i.e. following in-depth study 1
Type	Mandatory module; quantitative content 20%, English-language content 20%, legal content 20%
ECTS credits	7 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practice-oriented thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and staff members, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	A4 Credit and banking supervision V2 Analysis of financial statements and financial instruments (as a rule)
(Potentially) followed by	W2 Case studies on financial supervision
Preliminary reading	Capital Requirements Regulation, Capital Requirements Directive IV as well as the relevant regulatory technical standards, implementing technical standards and guidelines of the European Banking Authority (EBA); SSM Manual of the European Central Bank (ECB) Banking Act and regulations relating to the Banking Act Key publications and papers on supervision, e.g. the Prudential Supervisory Guideline, Minimum Requirements for Risk Management (MaRisk) and for the Design of Recovery Plans (MaSan); BaFin notices on the granting of authorisation; Basel II and Basel III frameworks
Number of students	All
P3Aa Objectives of professional competence (Bundesbank: DG Banking Supervision, and Banking and Financial Supervision Division of a regional office)	Students will discover how responsibilities are divided between the ECB, Bundesbank and BaFin and learn about the practical activities and processes of banking and financial services supervision at Central Office and/or the regional offices. They will gain an overview of the importance of supervision for the proper functioning of the financial sector and will be able to describe how the Bundesbank cooperates and interfaces with the ECB and BaFin. Regarding on-site inspections, ongoing supervision activities and the credit register for loans of €1 million or more, they will learn about typical tasks carried out by the Upper Intermediate Service, become familiar with the requirements of the most important posts and have an overview of the relevant legal regulations.
P3Aa Syllabus (Bundesbank: DG Banking Supervision, and Banking and Financial Supervision Division of a regional office)	<ul style="list-style-type: none"> - Tasks and functions of banking and financial services supervision in Germany and Europe (including instruments and reasons for the banking union, how the ECB, Bundesbank and BaFin cooperate when supervising significant institutions (SIs) and less significant institutions (LSIs)) - Structure of banking supervision (including joint supervisory teams) at the ECB, BaFin and Bundesbank - Instruments, processes and structures of JSTs (including risk assessment process, SREP assessment, monitoring reports) - Competencies and processes relating to supervisory activities for LSIs as well as FDI institutions and institutions subject to the Payment Services Oversight

	<p>Act; instruments of risk-based supervision (including reporting systems, financial statement audit reports, risk profiles, supervisory meetings, on-site inspections, evaluation of recovery plans)</p> <ul style="list-style-type: none"> - Processing strategic and interpretation issues on national and international prudential supervisory regulations/papers - Evaluation of prudential information as a basis for the assessment of current and potential risks - Studies on banking supervision issues on the basis of data from the reporting system - Questioning in the context of ongoing supervision of banks and financial services institutions
<p>P3Ab Objectives of professional competence (BaFin)</p>	<p>Students will learn about the practical tasks and processes of banking, securities and insurance supervision activities. Securities supervision: see BaFin's practical study module P3A Insurance supervision: see BaFin's practical study module P3B Banking supervision: see BaFin's practical study module P4B</p>
<p>P3Ab Syllabus (BaFin)</p>	<p>Securities supervision: see BaFin's practical study module P3A Insurance supervision: see BaFin's practical study module P3B Banking supervision: see BaFin's practical study module P4B</p>

Module	Organisation and tasks of areas with operational, operative monetary policy and financial stability functions DGs H, Z, M, F, Vo, Research Centre, DG S, Rc 1, service centres, Credit Assessment and Securities Section of a regional office
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P3B
Academic level of the module	Part of practical study 3, i.e. following in-depth study 1
Type	Mandatory module; quantitative content 20%, English-language content 10%, legal content 20%
ECTS credits	7 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practice-oriented thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and training staff, training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	Cannot be specified (due to the heterogeneity of the recruiting authorities accepting students)
(Potentially) followed by	Cannot be specified (due to the heterogeneity of acquired knowledge)
Preliminary reading	Bundesbank: internal rules and regulations, Monthly Reports. Recent publications by the DGs.
P3Ba Objectives of professional competence for DG H (including the Service Centre for the Automation of Cash Processing and the Service Centre for Cash Management Logistics)	Students will learn about the tasks and processes in the Bundesbank's cash handling area. They will gain an overview of the overall cash cycle and be able to interpret the operational statistics regarding cash payments. Students will also acquire an understanding of all major tasks covered by the Upper Intermediate Service in the area of cash payments and be trained in activities typical of posts in that area.
P3Ba Syllabus for DG H (including the Service Centre for the Automation of Cash Processing and the Service Centre for Cash Management Logistics)	<ul style="list-style-type: none"> - Structure and tasks of DG H and the respective service centres - Sequence and monitoring of processes in cash payments - Cash payment services of the Bundesbank
P3Bb Objectives of professional competence for DG Z	Students will learn about the tasks and processes in the field of cashless payments at the Bundesbank. They will gain an overview of payment systems in the national and international context. Students will also acquire an understanding of the important tasks covered by the Upper Intermediate Service in the area of cashless payments and be trained in activities typical of posts in that area.
P3Bb Syllabus for DG Z	<ul style="list-style-type: none"> - Structure and tasks of DG Z and the respective service centres - Sequence and monitoring of processes in cashless payments - Cash payment and securities transaction services of the Bundesbank - Where possible, shadowing selected payments projects

<p>P3Bc Objectives of professional competence of DG M (including the Credit Assessment and Securities Sections of a regional office)</p>	<p>Students will acquire knowledge about the tasks, processes and cooperation in both the operational and strategic issues areas of monetary policy. They will gain an overview of how the provision of central bank money impacts on economic activity, interest rates and the real economy. In addition, students will become familiar with the technical settlement of money market operations and the framework provisions for these procedures. They will learn about the Bundesbank's trading activities.</p>
<p>P3Bc Syllabus for DG M (including the Credit Assessment and Securities Section of a regional office)</p>	<ul style="list-style-type: none"> - Structure and tasks of DG M as well as the Credit Assessment and Securities Section of a regional office - Differences between the responsibilities performed in DG M and academic tasks performed in DGs Vo and F as well as the operational activities carried out by DGs Z and S - Technical settlement of money market operations, including collateral management - Activities in the strategic issues area of monetary policy and its cooperation with the operational area - Impact of monetary policy activities on interest rates and the real economy - Trading activities of the Bundesbank - Market management and floor trading activities - Fundamentals of valuing and structuring fixed-interest money and capital market instruments, including the most important risk metrics - Portfolio management - Role of the Bundesbank as a fiscal agent in central government debt management - Credit assessment system and its implementation in practice - Fundamentals of national and international project business
<p>P3Bd Objectives of professional competence for DG S (including the Service Centre for External Sector Statistics and the Service Centre for External Sector Audits and Reporting Queries)</p>	<p>Students will learn about the tasks and processes in DG Statistics and will help to compile individual statistics. They will be trained in performing plausibility checks and preparing statistical data for various German and international statistics and will be introduced to applications of statistical data evaluation programmes.</p>
<p>P3Bd Syllabus for DG S (including the Service Centre for External Sector Statistics and the Service Centre for External Sector Audits and Reporting Queries)</p>	<ul style="list-style-type: none"> - Structure and tasks of DG S and the respective service centres - Overview of the value chain in compiling individual statistics, ranging from operationalising the measurement target (including cooperation within the ESCB, with the Federal Statistical Office and international organisations), to collecting and preparing data, to presenting the results in publications and on user-oriented data platforms for internal (in particular, DGs Vo, F, B, Z) and external units (e.g. ministries, research institutions) - Significance of mathematical-statistical techniques for estimations, to consolidate information and as part of time series analyses
<p>P3Be Objectives of professional competence for DG F</p>	<p>Students will gain an overview of the key tasks and processes in DG Financial Stability and will assist in international working groups and/or observing and analysing financial markets and foreign economies.</p>
<p>P3Be Syllabus for DG F</p>	<ul style="list-style-type: none"> - Conveying practical basic knowledge on financial stability - Structure and tasks of DG F - Processes (meeting preparations, committee work) - Assistance in preparing analyses, reports, presentations
<p>P3Bf Objectives of professional competence for DG Vo</p>	<p>Students will gain an overview of the tasks and processes in DG Economics. Following on from the economic knowledge acquired during the theoretical studies, they see how the theoretical foundations are applied in practice in one of the Bundesbank's areas of work. In addition, students will help to prepare documents for communicating economic data to various internal and external recipients.</p>
<p>P3Bf Syllabus for DG Vo</p>	<ul style="list-style-type: none"> - Structure and tasks of DG Vo - Overview of the methodologies employed by the DG (models, simulations, etc.) - Significance of mathematical-statistical instruments for economic analyses - Assistance in preparing analyses, reports, presentations
<p>P3Bg</p>	<p>Students will be familiar with the structure and tasks of Risk Control (Rc1) and how these differ from the tasks performed by DGs M and Z. They will become</p>

<p>Objectives of professional competence for Risk Control (Rc1)</p>	<p>acquainted with the key processes involved in assessing, managing and monitoring financial risks in the Bundesbank's various business areas.</p>
<p>P3Bg Syllabus for Risk Control (Rc1)</p>	<ul style="list-style-type: none"> - Overview of cooperation in the Eurosystem concerning risk issues related to monetary policy (including purchase programmes, collateral framework, calculating haircuts, etc.) - Role of Risk Control as part of the Bundesbank's trading and investment business (including terms of investment to contain risk as well as investment management using strategic benchmarks in the context of managing reserve assets, foreign exchange trading, euro-denominated portfolios and third-party mandates) - Activities in Risk Control as part of asset management for third parties (including implementation of risk profiles and investment strategies) - Overview of the methods for assessing the risk and earnings situation (traditional risk management methods (e.g. calculating and analysing risk metrics such as value-at-risk, expected shortfall, modified duration and stress tests)) - Overview of Risk Control's IT and project landscape - Operational implementation of monitoring risk and creditworthiness as well as reporting
<p>P3Bh Objectives of professional competence for the Research Centre</p>	<p>Students will gain an overview of the activities and processes in the Research Centre. Depending on the area they work in, they will become acquainted with either the research process and work with microdata or with the work of the research services office, including management and coordination. They will have the opportunity to put the knowledge learned during the programme into practice. Students will assist with compiling and preparing statistics and documents for internal and external recipients.</p>
<p>P3Bh Syllabus for the Research Centre</p>	<ul style="list-style-type: none"> - Structure and tasks of the Research Centre - Overview of topics explored by the Research Centre and methods used - Overview of surveys conducted by the Research Centre - Significance of microdata for economic and econometric analyses - Assistance in preparing and compiling statistics and survey projects - Assistance in preparing analyses, reports and presentations - Assisting researchers with research services, management and coordination (conferences, workshops, seminars, IT, research project database, internet and intranet presence, controlling, procurement and much more)

Module	Organisation and tasks of areas with operational, operative monetary policy and financial stability functions DGs H, Z, M, F, Vo, Research Centre, S; Rc 1; service centres; Credit Assessment and Securities Section of a regional office
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4A
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Elective module; quantitative content 20%, English-language content 10%, legal content 20%
ECTS credits	8 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and training staff, training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	Cannot be specified (due to the heterogeneity of the units accepting students)
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	Deutsche Bundesbank: internal rules and regulations, monthly reports. Recent publications by the DGs.
P4Aa Objectives of professional competence for DG H (including the Service Centre for the Automation of Cash Processing and the Service Centre for Cash Management Logistics)	Students will learn about the tasks and processes in the Bundesbank's cash handling area. They will gain an overview of the overall cash cycle and be able to interpret the operational statistics pertaining to cash payments. Students will also gain an overview of all major tasks covered by the Upper Intermediate Service in the area of cash payments and be trained in activities typical of posts in the area of cash payments.
P4Aa Syllabus for DG H (including the Service Centre for the Automation of Cash Processing and the Service Centre for Cash Management Logistics)	<ul style="list-style-type: none"> - Structure and tasks of DG H and the respective service centres - Sequence and monitoring of processes in cash payments - Cash payment services of the Deutsche Bundesbank
P4Ab Objectives of professional competence for DG Z	Students will learn about the tasks and processes in the field of cashless payments at the Bundesbank. They will gain an overview of the payment systems in the national and international context. Students will also be acquainted with important tasks covered by the Upper Intermediate Service in the area of cashless payments and be trained in activities typical of posts in that area.
P4Ab Syllabus for DG Z	<ul style="list-style-type: none"> - Structure and tasks of DG Z and the respective service centres - Sequence and monitoring of processes in cashless payments - Cash payment and securities services of the Deutsche Bundesbank - Where possible, observing and/or assisting in selected payments projects
P4Ac	Students will acquire knowledge about the tasks, processes and interaction in the realm of operational and policy issues of monetary policy. They will gain an

Objectives of professional competence of DG M (including the Credit Assessment and Securities Sections of a regional office)	overview of how the provision of central bank money impacts on economic activity, interest rates and the real economy. In addition, students will become familiar with the technical settlement of money market operations and the framework provisions for these procedures. They will learn about the Bundesbank's trading activities.
P4Ac Syllabus for DG M (including the Credit Assessment and Securities Section of a regional office)	<ul style="list-style-type: none"> - Structure and tasks of DG M as well as the Credit Assessment and Securities Section of a regional office - Differences between the responsibilities performed in DG M and academic tasks in DGs Vo and F as well as the operational activities in DGs Z and S - Technical settlement of money market operations, including collateral management - Activities in the monetary policy issues sector and their cooperation with the operational area - Impact of monetary policy activities on interest rates and the real economy - Trading activities of the Deutsche Bundesbank - Market management and floor trading activities - Fundamentals of valuing and structuring fixed-interest money and capital market instruments, including the most important risk metrics - Portfolio management - Role of the Deutsche Bundesbank as a fiscal agent in central government debt - Credit assessment procedures and their implementation in practice - Fundamentals of national and international project business
P4Ad Objectives of professional competence for DG S (including the Service Centre for External Sector Statistics and the Service Centre for External Sector Audits and Reporting Queries)	Students will learn about the tasks and processes in DG Statistics and will help to compile individual statistics. They will be trained in performing plausibility checks and preparing statistical data for various German and international statistics and will be introduced to applications of statistical data evaluation programmes.
P4Ad Syllabus for DG S (including the Service Centre for External Sector Statistics and the Service Centre for External Sector Audits and Reporting Queries)	<ul style="list-style-type: none"> - Structure and tasks of DG S and the respective service centres - Overview of the value chain when compiling individual statistics, ranging from operationalising the measurement target (including cooperation within the ESCB, with the Federal Statistical Office and with international organisations), to collecting and preparing data, to presenting the results in publications and on user-oriented data platforms for internal (specifically DGs Vo, F, B, Z) and external units (e.g. ministries, research institutions) - Significance of mathematical-statistical techniques for estimations, to consolidate information and as part of time series analyses
P4Ae Objectives of professional competence for DG F	Students will gain an overview of the key tasks and processes in DG Financial Stability and will assist in international working groups and/or observing and analysing financial markets and foreign economies.
P4Ae Syllabus for DG F	<ul style="list-style-type: none"> - Transmitting practical basic knowledge on financial stability - Structure and tasks of DG F - Processes (meeting preparations, committee work) - Assistance in preparing analyses, reports, presentations
P4Af Objectives of professional competence for DG Vo	Students will gain an overview of the tasks and processes in DG Economics. Based on the economic knowledge acquired during the theoretical studies, they will learn about the practical application of theoretical foundations within the Bundesbank's remit. In addition, students will help to prepare documents for communicating economic data to various internal and external users.
P4Af Syllabus for DG Vo	<ul style="list-style-type: none"> - Structure and tasks of DG Vo - Overview of the methodologies employed by the DG (models, simulations, etc.) - Significance of mathematical-statistical instruments for economic analyses - Assistance in preparing analyses, reports, presentations
P4Ag Objectives of professional competence for Risk Control (Rc1)	Students will know the structure and tasks of Risk Control Rc1 and how these differ from the tasks performed by DGs M and Z. They will become acquainted with the key processes involved in assessing, managing and monitoring financial risks in the Bundesbank's various business areas.

<p>P4Ag Syllabus for Risk Control (Rc1)</p>	<ul style="list-style-type: none"> - Overview of work in the Eurosystem concerning risk issues related to monetary policy (including purchase programmes, collateral framework, calculating haircuts, etc.) - Role of Risk Control as part of the Bundesbank's trading and investment business (including terms of investment to contain risk as well as investment management using strategic benchmarks in the context of managing foreign reserves, foreign exchange trading, euro-denominated portfolios and third-party mandates) - Activities in the Policy Division as part of asset management for third parties (including implementation of risk profiles and investment strategies) - Overview of the methods for assessing the risk and earnings situation (traditional risk management methods (e.g. calculating and analysing risk metrics such as value-at-risk, expected shortfall, modified duration and stress tests)) - Overview of the Policy Division's IT and project landscape - Operational implementation of risk and creditworthiness monitoring as well as reporting
<p>P4Ah Objectives of professional competence for the Research Centre</p>	<p>Students will gain an overview of the activities and processes in the Research Centre. Depending on the area they work in, they will become acquainted with either the research process and working with microdata or with the work of the research services office including management and coordination. They will have the opportunity to put the knowledge acquired during their course into practice. Students will assist with compiling and preparing statistics and documents for internal and external customers.</p>
<p>P4Ah Syllabus for the Research Centre</p>	<ul style="list-style-type: none"> - Structure and tasks of the Research Centre - Overview of topics processed by the Research Centre and methods used - Overview of surveys conducted by the Research Centre - Significance of microdata for economic and econometric analyses - Assistance in preparing and compiling statistics and survey projects - Assistance in preparing analyses, reports and presentations - Assisting researchers with research services, management and coordination (conferences, workshops, seminars, IT, research project database, internet and intranet presence, controlling, procurement and much more)

Module	Organisation and tasks of areas with interdisciplinary functions (in-house and branch operations of a regional office, DGs C, IT, K, P, Rv, Ve, ÖB, R, Secretariat for European Affairs, Procurement Centre, service centres, Construction Management)
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4B
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Elective module; quantitative content 20%, English-language content 10%, legal content 10%
ECTS credits	8 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and training staff, training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	Cannot be specified (due to the heterogeneity of the units accepting students)
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	Deutsche Bundesbank: internal rules and regulations. Recent publications by the DGs. Recent publications by BaFin. Relevant legal sources.
P4Ba, P4Bb, P4Bc Objectives of professional competence for in-house operations of a regional office	Students will acquire a general understanding of the key tasks and processes at a regional office and, where applicable, a branch. They will gain an overview of the relationships between the Bundesbank's DGs and the corresponding branches. Students will know important fields of activity in the Upper Intermediate Service at the regional offices and the branches and will be able to describe typical tasks. They will also learn the fundamentals of human resources management and the supervision of operations at the respective units and become familiar with the relevant internal rules and regulations. During their time at a regional office, students may spend a maximum of three weeks at a branch (syllabus of P4Bc).
P4Ba Syllabus for the Human Resources and Organisation Sections at a regional office	Human Resources <ul style="list-style-type: none"> - Staff relations - Internal staff services - Remuneration matters Organisation <ul style="list-style-type: none"> - Overview of the structure and tasks of a regional office - General operational organisation - Construction matters, security, protection of property - Organising cash and cashless payments/account management - Departmental controlling, operational statistics
P4Bb Syllabus for the Administration Section at a regional office	<ul style="list-style-type: none"> - Commercial facility management - Management of office and residential buildings - Overview of other areas
P4Bc Syllabus for	<ul style="list-style-type: none"> - Introduction to cash payment operations - Introduction to the creation of teams and posts - Introduction to CMS

in-house operations of a branch	
P4Bd	tba
P4Be Objectives of professional competence for DG C (including the Service Centre for Administrative Accounting, Asset Accounting and Master Data Administration and the Service Centre for Cost Accounting Data Provision)	Students will learn about the key tasks and processes in the area of Controlling. They will acquire an overview of the various activities of the Upper Intermediate Service in DG Controlling and become familiar with the most important controlling instruments used by the Bundesbank and the Eurosystem (e.g. strategic planning, cost accounting, general accounting, HR standards, standard cost accounting, organisational consulting and analysis, job evaluation).
P4Be Syllabus for DG C (including the Service Centre for Administrative Accounting, Asset Accounting and Master Data Administration and the Service Centre for Cost Accounting Data Provision)	<ul style="list-style-type: none"> - Structure and tasks of DG C - Controlling instruments and processes - Organisational methods and project work - Accounting structure at the Deutsche Bundesbank
P4Bf Objectives of professional competence for DG IT	Students will gain an overview of the key tasks in DG Information Technology, the services it provides and the Bundesbank's IT infrastructure. They will assist in IT projects and apply project and process management methods. They will learn the significance of IT support for business processes and the necessity of cooperating closely with the business units.
P4Bf Syllabus for DG IT	<ul style="list-style-type: none"> - Structure and tasks of DG IT - Processes (in particular procurements and project planning) - Work methods for IT projects; involvement in IT projects
P4Bg Objectives of professional competence for DG K (including the Regional President's Office)	Students will gain an overview of the key tasks and processes in DG Communications (including the regional presidents' offices) and will help design and implement press and public relations projects, organise and carry out public relations events or design bank-internal communication media (in-house magazine, intranet). They will learn about the most important communications interfaces within the Bank and the importance of properly functioning external and internal communications procedures for the Bundesbank's image. They will be able to implement ideas and editorial contributions with technical support.
P4Bg Syllabus for DG K (including the Regional President's Office)	<ul style="list-style-type: none"> - Structure and tasks of DG K (including the Regional Presidents' Offices) - Methods and techniques of external and internal communications - Processes (in particular organisation and implementation of internal and external education programmes) - Methods of information management (library, documentation/research, archives) - Organisational methods and project work
P4Bh Objectives of professional competence for DG P (including the Service Centre for Staff Loans and the Service Centre for Travel and Relocation Expenses and Family Separation Allowance)	Students will gain an overview of the key tasks and processes in DG Human Resources and will primarily assist in implementing them in the areas of human resources management and/or internal staff services. Students will learn about the activities of the Upper Intermediate Service and become familiar with basic methods and typical tasks relating to HR activities. In addition, they will be able to deal with legal issues relating to HR activities (e.g. labour law, collective bargaining law).
P4Bh Syllabus for DG P (including the Service	<ul style="list-style-type: none"> - Structure and tasks of DG P - Human resources legal framework - Human resources management instruments and processes including interfaces with other business units

Centre for Staff Loans and the Service Centre for Travel and Relocation Expenses and Family Separation Allowance)	
P4Bi Objectives of professional competence for DG Rv	Students will gain an overview of the key tasks and processes in DG Audit and will assist in carrying them out. They will become familiar with relevant audit standards and, where possible, assist in planning, implementing, evaluating, reporting and documenting audit activities.
P4Bi Syllabus for DG Rv	<ul style="list-style-type: none"> - Structure and tasks of DG Rv - Audit methods - Where possible, assistance in audit activities (in particular planning, implementation, evaluation, reporting or documentation)
P4Bj Objectives of professional competence for DG Ve (including the Service Centre for Housing Administration and Holiday Homes)	Students will gain an overview of the key tasks and processes in DG Administration and will assist in carrying them out. They will participate in facility and property management activities or those in the area of logistics management.
P4Bj Syllabus for DG Ve (including the Service Centre for Housing Administration and Holiday Homes)	<ul style="list-style-type: none"> - Structure and tasks of DG Ve including the respective service centre - Processes (in particular project and logistics planning) - Assistance in project work - Where possible, assistance in compiling instruction manuals
P4Bk Objectives of professional competence for DG ÖB	Students will gain an overview of the key tasks and processes in DG Economic Education and will assist in implementing these in the areas of education, training, International Central Bank Dialogue, University of Applied Sciences, economic education, information management and Money Museum. Students will learn about the activities of the Upper Intermediate Service and will be familiar with basic methods of tasks typically performed in the DG. In addition, they will be able to deal with legal issues relating to internal and external education needs and the Bundesbank's specific career regulations. Students will complete tasks relating to International Central Bank Dialogue and the organisation and implementation of education, training and economic education seminars. They will take on assignments at the Money Museum and perform tasks in the archives and the library.
P4Bk Syllabus for DG ÖB	<ul style="list-style-type: none"> - Structure and tasks of DG ÖB - Processes (in particular organisation and implementation of internal and external education programmes) - Methods of information management (library, documentation/research, archives) - Organisational methods and project work
P4Bl Objectives of professional competence for DG R	Students will obtain an overview of the tasks and the structure of DG Legal Services and develop an awareness for legal issues (identifying potential legal problems) as well as an ability to solve them (necessity for the involvement of DG R).
P4Bl Syllabus for DG R (including the Service Centre for Financial Sanctions)	<ul style="list-style-type: none"> - Structure and tasks of DG R - Processes (e.g. involving DG R in projects/tasks of other DGs, organisation and implementation of meeting preparations for the Governing Council of the ECB and the Legal Committee) - Where possible, case studies/workshops
P4Bm Objectives of professional competence for the Secretariat for European Affairs	Students will become acquainted with the key tasks and processes in the Secretariat for European Affairs and will assist in carrying them out. They will recognise the importance of close cooperation with the business units.
P4Bm	<ul style="list-style-type: none"> - Structure and tasks of the Secretariat for European Affairs - Processes (in particular meeting preparations, written procedures)

Syllabus for the Secretariat for European Affairs	<ul style="list-style-type: none"> - Assistance in establishing procedures in the EURAS database - Where possible, evaluations of business unit-specific projects/tests
P4Bn Objectives of professional competence for the Procurement Centre	Students will gain an overview of the key tasks and processes in the Procurement Centre and will assist in carrying them out. They will contribute to the completion of tasks in the area of procurement.
P4Bn Syllabus of the Procurement Centre	<ul style="list-style-type: none"> - Structure and tasks of the Procurement Centre - Processes (in particular in the context of procurements) - Assistance in project work - Where possible, assistance in compiling instruction manuals
P4Bo Objectives of professional competence for Construction Management	Students will learn about the key tasks and processes in the area of Construction Management. They will participate in the work undertaken by IT product managers and, where possible, in IT projects. Students will learn about the activities of the Upper Intermediate Service and will be familiar with functions typically performed in Construction Management.
P4Bo Syllabus for Construction Management	<ul style="list-style-type: none"> - Structure and tasks of Construction Management - Processes (standard cost account planning for Construction Management and IT product management) - Where possible, assistance in project work - Where possible, assistance in compiling user manuals and process descriptions

Module	Internship at another suitable institution in Germany or abroad
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4C
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Internship at an institution in Germany or abroad (only European countries (in the geographical meaning) – a list of suitable countries can be found in the Bundesbank's Main tutor's memo. Quantitative content 20%, English-language content 10% (higher percentage if module is completed abroad), legal content 10% (potentially higher)
ECTS credits	8 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and training staff, training at individual posts, independent study
Lecturer responsible for the module	Main tutor at another institution
Prerequisites	Cannot be specified (due to the heterogeneity of the units accepting students)
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	Recent publications by the host institution
Objectives of professional competence	Students will gain an overview of the main tasks of the host institution (e.g. central bank, banking supervisory authority or international organisation) and become familiar with the relationship in which this institution stands to the ESCB and the Bundesbank. The University may specify additional objectives of professional competence for the student individually, depending on the host institution.
Syllabus	Cannot be specified due to the heterogeneity of the possible applications

Module	Organisation and tasks of banking supervision (DG B, Banking and Financial Supervision Division of a regional office, BaFin)
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4D
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Elective module; quantitative content 20%, English-language content 20%, legal content 20%
ECTS credits	8 ECTS credits
Length of the module	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and staff members, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	A4 Credit and banking supervision V2 Analysis of financial statements and financial instruments Generally, V5 Banking, securities and insurance supervision Generally, W2 Case studies on financial supervision
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	Capital Requirements Regulation, Capital Requirements Directive IV as well as the relevant regulatory technical standards, implementing technical standards and guidelines of the European Banking Authority (EBA); SSM Manual of the European Central Bank (ECB); Banking Act and regulations relating to the Banking Act; key publications and papers on supervision, e.g. the Prudential Supervisory Guideline, Minimum Requirements for Risk Management (MaRisk) and for the Design of Recovery Plans (MaSan); BaFin notices on the granting of authorisation; Basel II and Basel III frameworks.
P4Da Objectives of professional competence (Bundesbank: DG Banking Supervision, and Banking and Financial Supervision Division of a regional office)	Students will discover how responsibilities are divided among the ECB, the Bundesbank and BaFin and learn the practical activities and processes of banking and financial services supervision at Central Office and/or the regional offices. They will gain an overview of the importance of banking supervision for the proper functioning of the financial sector and will be able to describe how the Bundesbank cooperates and interfaces with the ECB and BaFin. Regarding on-site inspections, off-site supervision activities and the credit register for loans of €1.5 million or more, they will be acquainted with typical tasks carried out by the Upper Intermediate Service, become familiar with the requirements of the most important posts and have an overview of the relevant legal regulations.
P4Da Syllabus (Bundesbank: DG Banking Supervision, and Banking and Financial Supervision Division of a regional office)	<ul style="list-style-type: none"> - Tasks and functions of banking and financial services supervision in Germany and Europe (including instruments of and reasons for the banking union and how the ECB, Bundesbank and BaFin cooperate when supervising significant institutions (SIs) and less significant institutions (LSIs)) - Set-up of banking supervision (including joint supervisory teams) at the ECB, BaFin and Bundesbank - Instruments, processes and structures of JSTs (including risk assessment process, SREP assessment, monitoring reports) - Competencies and processes relating to supervisory activities for LSIs as well as instruments of risk-based supervision (including reporting systems, financial

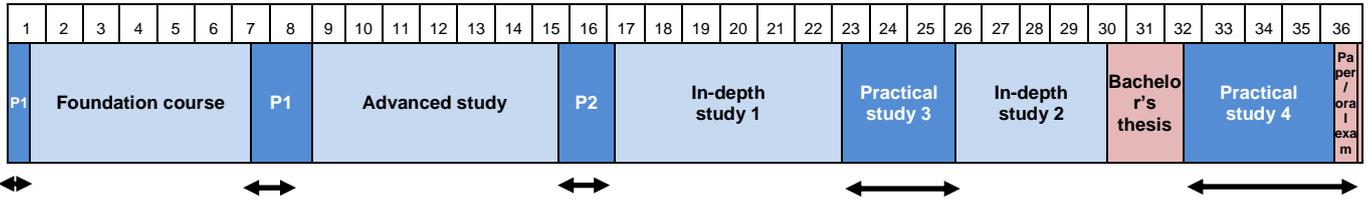
	<p>statement audit reports, risk profiles, supervisory meetings, on-site inspections, evaluation of recovery plans)</p> <ul style="list-style-type: none"> - Processing policy and interpretation issues on national and international prudential supervisory regulations/papers - Evaluation of prudential information as a basis for the assessment of current and potential risks - Studies on banking supervision issues on the basis of data from the reporting system - Requests for information in the context of off-site supervision of banks and financial services institutions
<p>P4Db Objectives of professional competence (BaFin)</p>	<p>Students will learn the practical tasks and processes of banking, securities and insurance supervision activities. Securities supervision: see BaFin's practical study module P3A Insurance supervision: see BaFin's practical study module P3B Banking supervision: see BaFin's practical study module P4B</p>
<p>P4Db Syllabus (BaFin)</p>	<p>Securities supervision: see BaFin's practical study module P3A Insurance supervision: see BaFin's practical study module P3B Banking supervision: see BaFin's practical study module P4B</p>

Module	Professional specialisation at the Bundesbank
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4E
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Elective module to specialise for the initial professional application at the Bundesbank. Quantitative content 20%, English-language content 10% (higher percentage if module is completed abroad), legal content 10% (potentially higher)
ECTS credits	8 ECTS credits
Length of the module	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and training staff, training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	Cannot be specified (due to the heterogeneity of the units accepting students)
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	Deutsche Bundesbank: internal rules and regulations.
Objectives of professional competence	Students will learn about the key tasks and processes in their future workplace. Moreover, students will learn about the most important tasks carried out by the Upper Intermediate and the Higher Service in their division and the functional procedures within their unit.
Syllabus	Cannot be specified due to the heterogeneity of the possible applications

Module	Organisation and tasks of a Bundesbank branch
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4F
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Elective module; quantitative content 20%, English-language content 0%, legal content 50%
ECTS credits	8 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring sessions with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	A3 Payment transactions (as a rule) V4 Organisation, management and human resources management W3 Case studies on payment and financial market infrastructure
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Objectives of professional competence	Students will learn about the tasks and processes at a branch, particularly in the cash handling area. They will gain an overview of the cash cycle and the significance of cash payments for the Bundesbank and will participate in the activities of typical posts in the Upper Intermediate Service. Students will also grasp the fundamentals of human resources management and the supervision of operations at branches and will become familiar with the most important internal rules and regulations in the Bundesbank's cash handling area.
Preliminary reading	Deutsche Bundesbank: internal rules and regulations. Cash payment publications by the Bundesbank's DG Cash Management and the ECB.
Syllabus	Introduction to business operations and operational supervision <ul style="list-style-type: none"> - Division of tasks, operational structure - Criteria for the creation of teams/posts - Granting authorisation (e.g. key guide, CMS) - Observing operational procedures (e.g. working in areas under video surveillance, machine efficiency) - Explaining the internal control structure and compiling the operational supervision plan (e.g. charts on the structure of teams/inspections) - Analysis of potential weak points and corrective measures - Evaluations in CMS (CashEDI) - Measures in the event of discrepancies in the cash handling area, processing liability issues and reimbursement claims - Complex issues regarding account management (e.g. in the event of overdrafts, breach of account terms and conditions, death, insolvency, attachment) - Approving measures with an impact on expenditure Introduction to human resources management/administration <ul style="list-style-type: none"> - Managing human resources (staff planning, holiday planning, etc.) - The branch working time model, alternative working time models - Internal communication (including team leader and team meetings) - Introduction to human resources management (e.g. appraisals, employee feedback meetings, staff development, career guidance including further training, incentives) - Handling complex HR issues (welfare, health management including in-house integration management, sanctions, staff representation, equal opportunities) Introduction to security, site security, building management <ul style="list-style-type: none"> - Defining the concept of site security (including security provisions) - Liaising with local police; measures in the event of a robbery/emergency

	<ul style="list-style-type: none">- Occupational health and safety, workplace ergonomics and assessments of workplace hazards <p>Introduction to external contacts</p> <ul style="list-style-type: none">- Meetings with customers, cultivation of contacts with local businesses (e.g. CIT companies, credit institutions)- Events on counterfeit prevention (e.g. at schools, commercial enterprises, credit institutions)
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3.2 Practical studies for Federal Financial Supervisory Authority (BaFin) students



Code Module	Academic level	ECTS credits	Duration	Type	Examination
P1-1 Overview of the Federal Financial Supervisory Authority (BaFin) – part 1	Practical study 1 (part 1)	See part 2	2 months (part 1: 4-9 days)	Mandatory module	In part 2
P1-1 Overview of the Federal Financial Supervisory Authority (BaFin) – part 2	Practical study 1 (part 2)	7		Mandatory module	For each module students must take one examination consisting of a practical performance evaluation (25%) and an examination (75%). The different forms of examination are: <ul style="list-style-type: none"> ○ internship report; ○ completion of any other practical tasks typically performed in the in the Upper Intermediate Service; ○ presentation; ○ paper or ○ oral examination.
P2 Organisation and tasks of banking supervision	Practical study 2	7	Around 7 weeks	Mandatory module	
P3A Organisation and tasks of securities supervision	Practical study 3	7	Around 7 weeks	Mandatory module	
P3B Organisation and tasks of insurance supervision		7	Around 7 weeks	Mandatory module	
P4A Organisation and tasks of interdisciplinary supervisory areas and of the Consumer Protection Directorate	Practical studies 4: Mandatory module P4B and 2 out of 3 elective modules	8	Around 7 weeks	Elective module	
P4B Organisation and tasks of banking supervision (in-depth study)		8	Around 7 weeks	Mandatory module	
P4C Professional specialisation at the Federal Financial Supervisory Authority (BaFin) or internship at a different suitable institution in Germany and abroad		8	Around 7 weeks	Elective module	
P4D Organisation and tasks of BaFin as the national resolution authority		8	Around 7 weeks	Elective module	

An overview of the main content-related links between theoretical and practical studies can be found on the following page.

Main content-related links between theoretical and practical studies

The overview shows the dual link between the main contents of the practical modules and those of the theoretical studies. The varied mix in practical studies offered by the different business units requires a broad theoretical knowledge base, which is covered by the modules of the theoretical studies. The modules are linked bilaterally throughout the course of study. Knowledge gained from the theoretical modules is required during the practical placements; by the same token, expertise built up during a practical placement also contributes to success in the theoretical study.

Modules of theoretical studies	Modules of practical studies (BaFin students)							
	P1 Overview of BaFin	P2/P4B Banking supervision	P3A Securities supervision	P3B Insurance supervision	P4A Interdisciplinary supervisory areas, consumer protection	P4B Organisation and tasks of banking supervision (in- depth study)	P4C Professional specialisation/ external institution	P4D Organisation and tasks of BaFin as the national resolution authority
G1 Methodological foundations	Cannot be specified (due to the heterogeneity of the units accepting students)	X	X	X	Cannot be specified (due to the heterogeneity of the units accepting students)	Cannot be specified (due to the heterogeneity of the units accepting students)	Cannot be specified (due to the heterogeneity of the units accepting students)	Cannot be specified (due to the heterogeneity of the units accepting students)
G2 Introduction to business administration		X	X	X				
G3 Introduction to the banking industry		X	X	X				
G4 Introduction to the legal system: Basic Law, Civil Code and Commercial Code		X	X	X				
G5 Principles of economics								
A1 Quantitative methods		X	X	X				
A2 Business administration: deepening of knowledge								
A3 Payment transactions								
A4 Credit and banking supervision		X	X	X				
A5 Monetary economics								
V1 Bank and central bank management		X	X	X				
V2 Analysis of financial statements and financial instruments		X	X	X				
V3 Financial markets and international economics		X	X	X				
V4 Organisation, management and human resources management								
V5 Banking, securities and insurance supervision		X	X	X				
V6 Digital transformation and advanced analytics		O	O	O				
W1 Case studies on monetary policy and financial stability	X	X	X					
W2 Case studies on financial supervision	X	X	X					
W3 Case studies on payment and financial market infrastructure	X	X	X					
W4 Corporate law, contract practice and contract management	O	O						
W5 Financial econometrics	X	X	X					
W6 Process and project management	O	O	O					

X particularly important links O links of secondary importance

Module	Overview of the Federal Financial Supervisory Authority (BaFin) – part 1
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P1-1
Academic level of the module	Prior to the foundation course
Type	Mandatory module; quantitative content 0%, English-language content 0%, legal content 20%
ECTS credits	See P1-2
Duration	4 to 9 working days
Examination date	See P1-2
Form of examination	See P1-2
Teaching methods	Classes, assignments, independent study
Lecturer responsible for the module	Head tutor
Prerequisites	---
(Potentially) followed by	G3 Introduction to the banking industry
Objectives of professional competence	Students will gain an overview of the tasks and organisation of BaFin. They will have received instruction on the corresponding legal bases and will be familiar with the relevant Rules of Procedure of the institution. In addition, students will understand BaFin's role in the context of national, European and international supervision. They will have a general understanding of legal and technical oversight by the Federal Ministry of Finance, the activities of the Administrative Council, Advisory Board, special advisory committees of the business units and the inspection and monitoring rights of the Federal Court of Auditors. The students will understand their legal status as civil servants. They will also become familiar with basic rules and regulations, procedures and internal directives. They will have the opportunity to become acquainted with the staff representation committee. Students will receive an introduction to BaFin's standard software.
Preliminary reading	Civil service law provisions, internal rules and regulations of BaFin
Syllabus	<ul style="list-style-type: none"> - Course of study including rules and regulations - Overview of the tasks and organisation of BaFin including legal bases and BaFin's role in the context of national, European and international supervision - Legal status of civil servants - Introduction to BaFin's standard software

Module	Overview of the Federal Financial Supervisory Authority (BaFin) – part 2 (Z/IT and IF/GW)
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P1-2
Academic level of the module	Part of practical study 1, i.e. following the foundation course
Type	Mandatory module; quantitative content 10%, English-language content 0%, legal content 50%
ECTS credits	7 ECTS credits; including part 1 of practical study 1
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Practical training, independent study, working group on overarching issues
Lecturer responsible for the module	Practical studies tutor
Prerequisites	P1-1
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the units accepting students)
General objectives of professional competence P 1-2	The students will learn about BaFin's structure and organisation and its role and function with regard to observing statutory responsibilities. They will be able to adequately process transactions by following internal provisions on co-signings, ICS and equity interests. Students will be able to recognise interfaces and initiate contact accordingly without instruction. They will know internal rules and instructions and will be able to process transactions independently via subsumption.
Preliminary reading	Civil service and administrative provisions, internal rules and regulations of BaFin
Syllabus P 1-2 SP/ZI 2/ZI 3/ZII 5	<ul style="list-style-type: none"> - Fundamentals of the structure and organisation of operations (e.g. ICS, organisational breakdown, Rules of Procedure) - Career development (e.g. MAG, further training) - Staff relations (fundamentals of civil service and collective bargaining law)
Syllabus P1-2 GW	<ul style="list-style-type: none"> - Fundamentals of institution-specific money laundering supervision - Overview of the tasks of the anti-money laundering (GW) Directorate regarding the supervision of credit institutions, insurance companies, financial services institutions and payment institutions and the account access procedure - Evaluation of audit reports, risk classification and introduction of supervisory measures - Fundamentals of supervising leasing and factoring enterprises
Syllabus P1-2 IT	<ul style="list-style-type: none"> - IT security, IT controlling, IT strategy, assistance in procurement and granting activities - Budget, ITR4Web, assistance in establishing and developing IT concepts - Technical procedures, database applications, second level support for standard office applications, systems administration

Syllabus P1-2 IF	<ul style="list-style-type: none">- Fundamentals of the structure and organisation of operations (e.g. ICS, organisational breakdown, Rules of Procedure)- Systematic foundations (definition of white, grey and black capital markets, banking and insurance supervision law as a special commercial law)- Fundamentals of authorisation requirement pursuant to the Banking Act, Insurance Supervision Act and Payment Services Oversight Act (transactions requiring authorisation, exceptional circumstances, exemptions)- Fundamentals of prosecuting unauthorised financial transactions pursuant to the Banking Act, Insurance Supervision Act and Payment Services Oversight Act (powers of investigation and intervention, criminal liability/cooperation with law enforcement authorities, cross-border cases/cooperation with foreign supervisory authorities)- Overview of the system of appeal procedures (in conjunction with the prosecution of unauthorised financial transactions)
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Module	Organisation and tasks of banking supervision
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P2
Academic level of the module	Part of practical study 2, i.e. following the advanced study stage
Type	Mandatory module; quantitative content 20%, English-language content 10%, legal content 20%
ECTS credits	7 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	<p>Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of:</p> <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the in the Upper Intermediate Service; 5. an oral exam. <p>The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).</p>
Teaching methods	Tutoring session with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	A4 Credit and banking supervision (as a rule)
(Potentially) followed by	V5 Banking, securities and insurance supervision
General objectives of professional competence	<p>Students will learn the practical tasks and processes of the BaFin's banking and financial supervision activities (Banking Supervision BA Directorate). They will gain an overview of the importance of banking supervision for the proper functioning of the banking sector. Students will learn about typical tasks carried out in the different BaFin divisions by the Upper Intermediate Service, be familiar with the requirements of the most important posts and have an overview of the relevant legal regulations. In particular, they will have been introduced to the main banking supervision processes 2-5 (processing of incoming information, active procurement and processing of information, invasive measures and decisions upon request).</p>
Preliminary reading	<p>Banking Act and regulations relating to the Banking Act; Capital Requirements Regulation, Capital Requirements Directive IV, as well as the relevant regulatory technical standards, implementing technical standards and guidelines of the European Banking Authority (EBA); Single Supervisory Mechanism (SSM) Regulation and SSM Manual of the European Central Bank; key publications and papers on supervision, e.g. the Prudential Supervisory Guideline, Minimum Requirements for Risk Management (MaRisk) and for the Design of Recovery Plans (MaSan); Basel II and Basel III frameworks.</p>
Syllabus	<p>In the divisions:</p> <ul style="list-style-type: none"> - Tasks and functions of banking supervision in Germany - Prudential supervisory instruments (including supervisory actions, risk profile, supervisory meetings, approval upon request or intervention) - Processes and competencies relating to supervisory activities

Module	Organisation and tasks of securities supervision (Directorates WA 1 to WA 5)
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P3A
Academic level of the module	Part of practical study 3, i.e. following in-depth study 1
Type	Mandatory module; quantitative content 50%, English-language content 10%, legal content 40%
ECTS credits	7 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring session with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	As a rule, V5 Banking, securities and insurance supervision
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Objectives of professional competence P3A	Students will obtain detailed knowledge of the statutory regulations relevant for securities supervision. In addition to the prerequisites and internal processes (e.g. technology for preparing orders) for preparing information requests and other acts of administration pursuant to Section 4 of the Securities Trading Act (<i>Wertpapierhandelsgesetz</i>) and Section 40 of the Securities Acquisition and Takeover Act (<i>Wertpapiererwerbs- und Übernahmegesetz</i>), students will become familiar with procedures for supervisory examinations, processing requests and issuing authorisations.
Preliminary reading	Current publications and papers by the securities and financial supervision business units of BaFin
Syllabus P3A; WA 1	<ul style="list-style-type: none"> - Monitoring of notification and publication duties and transmission duties to the company register in the event of changes in the share of voting rights in listed public limited companies (Sections 21 et seq. of the Securities Trading Act) and notification and publication duties pursuant to Sections 30a to 30g of the Securities Trading Act - Processing bid offers (mandatory, takeover and securities acquisition bids) for target companies throughout Germany, processing market supervision procedures and exemption procedures - Monitoring financial reporting requirements pursuant to Sections 37v et seq. of the Securities Trading Act
Syllabus P3A; WA 2	<ul style="list-style-type: none"> - Insider monitoring (stages of an insider trading investigation, cooperation with the police and the public prosecutor's office) - Monitoring ad hoc disclosure of German and foreign enterprises admitted to exchange trading - Policy issues in the area of clearing and settlement - Monitoring publication duties for directors' dealings - Monitoring the ban on short-selling - Review of securities and investment prospectuses - Monitoring market manipulation (stages of a market manipulation investigation, cooperation with the police and the public prosecutor's office)

	<ul style="list-style-type: none"> - Market analysis (preliminary inspection and analysis of potential insider and market manipulation breaches)
Syllabus P3A; WA 3	<ul style="list-style-type: none"> - Monitoring competence and transparency rules pursuant to Section 34b of the Securities Trading Act and notification requirements pursuant to Section 34c of the Securities Trading Act - Securities Trading Act supervision of organisational requirements at private banks, savings banks and cooperative banks - Banking Act and Securities Trading Act supervision of financial service providers including cross-border financial service providers and branches
Syllabus P3A; WA 4	<ul style="list-style-type: none"> - Supervision of investment management companies pursuant to German Investment Code - Supervision of collective investment undertakings pursuant to the German Investment Code (including closed-end funds, open-end real estate funds and hedge funds as well as open-end securities funds) - Supervision of depositories in terms of their depository function pursuant to the German Investment Code
Syllabus P3A; WA 5	<ul style="list-style-type: none"> - Review of securities and investment product prospectuses - Monitoring analysts of financial instruments and competence and transparency rules pursuant to Section 34b of the Securities Trading Act and notification requirements pursuant to Section 34c of the Securities Trading Act - Market supervision in the area of investment products and securities

Module	Organisation and tasks of insurance supervision
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P3B
Academic level of the module	Part of practical study 3, i.e. following in-depth study 1
Type	Mandatory module; quantitative content 20%, English-language content 10%, legal content 10%
ECTS credits	7 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring session with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	Generally, V5 Banking, securities and insurance supervision
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
General objectives of professional competence for P3B	Students will learn the practical tasks and processes of insurance supervisors at BaFin (Insurance and Pension Funds Supervision VA Directorate). They will gain an overview of the importance of insurance supervision for the common good and for the proper functioning of the financial sector. Students will learn about typical tasks carried out in the different divisions by the Upper Intermediate Service, be familiar with the requirements of the most important tasks and have an overview of the relevant legal regulations. In the policy issues divisions, students will become familiar with typical tasks carried out in the Upper Intermediate Service and will have an overview of the relevant legal regulations.
Preliminary reading	Current publications and papers by the insurance and financial supervision business areas of BaFin
Syllabus P3B	<ul style="list-style-type: none"> - Structure of insurance supervision with three division types: undertaking-related divisions, competence-related divisions and policy issues divisions, as well as an outline of the VA Directorate - Main features of operational supervision of life and non-life insurers and institutions for occupational retirement provision under Solvency I and Solvency II (including group supervision) - Main features of the tasks of the policy issues divisions - Case studies from ongoing supervision, overview of typical activities of the Upper Intermediate Service - Case studies, e.g. preparing an analysis report of an insurance company's annual accounts

Module	Organisation and tasks of interdisciplinary supervisory areas and the Consumer Protection Directorate (IFR, QRM, SRI or VBS)
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4A
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Elective module; quantitative content 20%, English-language content 20%, legal content 20%
ECTS credits	8 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	<p>Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of:</p> <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the in the Upper Intermediate Service; 5. an oral exam. <p>The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).</p>
Teaching methods	Tutoring session with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	Cannot be specified (due to the heterogeneity of the units accepting students)
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	Internal rules and regulations of BaFin, publications relevant to the content being taught
Objectives of professional competence P4Aa IFR	<p>Students will learn about the structure and organisation of the IFR directorate and the activities and objectives in the area of international policy/affairs. They will recognise interfaces with other BaFin units and the procedural integration of all organisational units through the collegiate system. They will learn about the key global standard-setting bodies (FSB, BCBS, IAIS, IOSCO, Joint Forum) and the European supervisory structure (EBA, EIOPA, ESMA, ESRB) as well as their tasks and functions when setting and helping to shape international regulatory standards. In this regard, students will also learn about the fundamentals of the European legislative procedure (including the Lamfalussy process). Students will know the key forms of international cooperation (e.g. MoUs, bilateral meetings) and technical cooperation (e.g. twinning).</p> <p>They will get to know the structure of the Risk Committee and understand the operating procedures of the Committee's secretariat. They will learn about the links between microprudential and macroprudential supervision and be able to carry out their own analyses. Students will become acquainted with the fundamentals of strategic management at BaFin.</p>

<p>Syllabus P4Aa IFR</p>	<ul style="list-style-type: none"> - Organisational and operational structure of the IFR directorate (including the collegiate system) - Setting and helping to shape international regulatory standards (including architecture of the global standard-setting bodies and the European regulatory structure) - Tasks/objectives in the context of bilateral and technical cooperation - International Financial Reporting Standards - Introduction to country risk analysis - Complex financial instruments - Impact assessment and financial stability analysis - Identification and analysis of financial market risks and risks in the economic environment - Key features of strategic management at BaFin
<p>Objectives of professional competence P4Ab QRM</p>	<p>Upon completion of this module, students will be versed in the tasks of the QRM Directorate within the general context of BaFin, fundamentals of modelling risk types, of provisions and the implementation of regulatory requirements for quantifying risks using internal models (Basel II/III, Solvency 2), have an overview of technical aspects of risk modelling and know the fundamentals of application of risk models in risk management processes.</p>
<p>Syllabus P4Ab QRM</p>	<ul style="list-style-type: none"> - Introduction to the work of QRM - Introduction to market, credit, actuarial and operational risks - Approaches to risk modelling - Aspects of regulatory requirements for the modelling of risks - Aspects of applying risk models in risk management processes of banks/insurance companies
<p>General objectives of professional competence P4Ac SR</p>	<p>Upon completion of the module, students will be versed in the tasks of the Strategy Development division within the overall context of BaFin and able to understand the development of strategies, objectives and measures as well as BaFin's management cycle. They will grasp the interplay between division management and BaFin's overall management. Furthermore, the students will know the composition and structure of the Strategy and Risk Committee and can assess the topics discussed there and their importance for the Executive Board. Students will also be aware of the importance of the organisational unit SRI in supporting the Advisory Board, structuring and bundling strategic topics and taking charge of coordination during crises.</p>
<p>Course content P4Ac SR</p>	<ul style="list-style-type: none"> - Bancassurance strategies - BaFin's management cycle - Directorate objectives, metrics and measures - Strategic management reporting system and strategic frameworks or guidelines - Audit planning - Topics and functioning of the Strategy and Risk Committee Related processes within the organisational unit SRI, ranging from assessing and developing BaFin positions to deriving specific recommendations for action. - Importance of the Advisory Board and support by the organisational unit SRI
<p>Objectives of professional competence P4Ad General Consumer Protection (VBS)</p>	<p>Students will know the organisation and structure of the Consumer Protection Directorate and be able to understand its tasks and functions as well as their significance for financial supervision as a whole. They will understand the procedure for processing consumer complaints regarding regulated entities, gain an overview of the structures of deposit guarantee and investor compensation schemes as well as collateral funds and understand the role of legal bodies in financial supervision.</p>

Syllabus P4Ad VBS	<ul style="list-style-type: none">- Organisational and operational structure of the VBS Directorate- Fundamentals of consumer protection in financial supervision, in particular processing entries and complaints regarding regulated entities- Fundamentals and operating procedures of indemnification schemes, deposit guarantee schemes, collateral funds and investor compensation schemes- Structure and operating procedures of legal bodies in financial supervision, fundamentals and special features of legal remedies procedures and fundamentals of processing applications pursuant to the German Freedom of Information Act
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Module	Organisation and tasks of banking supervision (in-depth study)
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4B
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Mandatory module; quantitative content 20%, English-language content 10%, legal content 20%
ECTS credits	8 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring session with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	As a rule: A4 Credit and banking supervision V5 Banking, securities and insurance supervision W2 Case studies on financial supervision
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	Banking Act and regulations relating to the Banking Act; Capital Requirements Regulation, Capital Requirements Directive IV, as well as the relevant regulatory technical standards, implementing technical standards and guidelines of the European Banking Authority (EBA); Single Supervisory Mechanism (SSM) Regulation and SSM Manual of the European Central Bank; key publications and papers on supervision, e.g. Prudential Supervisory Guideline (<i>Aufsichtsrichtlinie</i>), the various minimum requirements; Basel II and Basel III frameworks.
Objectives of professional competence	In-depth study module. Students will learn the practical tasks and processes of the BaFin's banking and financial supervision activities (Banking Supervision BA Directorate). They will gain an overview of the importance of banking supervision for the proper functioning of the banking sector. Students will learn about typical tasks carried out in the different BaFin divisions by the Upper Intermediate Service, be familiar with the requirements of the most important posts and have an overview of the relevant legal regulations. In particular, they will have been introduced to the main banking supervision processes 2-5 (processing of incoming information, active procurement and processing of information, invasive measures and decisions upon request). In the policy issues divisions, students will become familiar with typical tasks carried out in the Upper Intermediate Service and will have an overview of the relevant legal regulations. In particular, they will have become acquainted with the main banking supervision processes 7 and 8 (general management and basic processes).
Syllabus	In the divisions: – Tasks, structure and functions of banking supervision in Germany and Europe (including SSM, Joint Supervisory Teams, how the ECB, Bundesbank and BaFin cooperate when supervising significant institutions (SIs))

	<p>and less significant institutions (LSIs))</p> <ul style="list-style-type: none">– Instruments, processes and structures of JSTs (including risk assessment process, SREP assessment, monitoring reports)– Prudential supervisory instruments (including supervisory actions, risk profile, supervisory meetings, notification upon request or intervention)
	<ul style="list-style-type: none">– Processes and competencies relating to supervisory activities, taking into account the differences between SIs and LSIs (including reporting systems, financial statement audit reports, risk profiles, supervisory meetings, ordering special inspections, evaluation of recovery plans (group R)) <p>In the policy issues divisions:</p> <ul style="list-style-type: none">– Tasks and functions of banking supervision in Germany and Europe– Policy and interpretation issues– Legal developments– Organisation of supervision

Module	Professional specialisation at the Federal Financial Supervisory Authority (BaFin) (specialising where possible for the initial professional application) or internship at a different suitable institution in Germany or abroad
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4C
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Elective module for specialising in the initial professional application at the Bundesbank, BaFin or a foreign institution. Quantitative content 20%, English-language content 10% (higher percentage if module is completed abroad), legal content 10% (or higher)
ECTS credits	8 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	Section 18(5) of the GBankDVDV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of: <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the in the Upper Intermediate Service; 5. an oral exam. The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).
Teaching methods	Tutoring session with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	Cannot be specified (due to the heterogeneity of the units accepting students)
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	Internal rules and regulations of BaFin, publications relevant to the content being taught
P4Ca: Objectives of professional competence for specialising for the initial professional application	Students will learn about the key tasks and processes in their future workplace. Moreover, students will learn about the most important tasks carried out by the Upper Intermediate and the Higher Service in their division and the functional procedures within their unit.
P4Cb: Objectives of professional competence for internships outside the recruiting authority	Students will gain an overview of the key tasks of the recruiting institution and will be familiar with the links between BaFin and other relevant national and international organisations. The University may specify additional objectives of professional competence for the student individually, depending on the host institution.
Syllabus P4C	Cannot be specified (due to the variety of possible applications)
(Potentially) followed by	---

Module	Organisation and tasks of BaFin as the national resolution authority
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Code	P4D
Academic level of the module	Part of practical study 4, i.e. following in-depth study 2
Type	Elective module; quantitative content 20%, English-language content 10%, legal content 20%
ECTS credits	8 ECTS credits
Duration	Around 7 weeks
Examination date	During the module
Form of examination	<p>Section 18(5) of the GBankD/DV: the assessment consists of the examination pursuant to Section 18(4) (75%) and a practical performance evaluation (25%). The examination during the period of practical studies can be carried out in the form of:</p> <ol style="list-style-type: none"> 1. an internship report; 2. a presentation; 3. a paper; 4. completion of any other practical tasks typically performed in the in the Upper Intermediate Service; 5. an oral exam. <p>The performance evaluation is carried out by the responsible training officer with the involvement of the training staff and includes the key performance and competence criteria (commitment, analytical and practical thinking, social conduct, organisational skills, communication skills).</p>
Teaching methods	Tutoring session with practical studies tutors and training staff, practical training at individual posts, independent study
Lecturer responsible for the module	Practical studies tutor
Prerequisites	<p>As a rule:</p> <ul style="list-style-type: none"> A4 Credit and banking supervision V1 Bank and central bank management V5 Banking, securities and insurance supervision V2 Analysis of financial statements and financial instruments
(Potentially) followed by	Cannot be specified (due to the heterogeneity of the acquired knowledge)
Preliminary reading	<p>Bank Recovery and Resolution Directive 2, Recovery and Resolution Act (<i>Sanierungs- und Abwicklungsgesetz</i>), Single Resolution Mechanism Regulation; Capital Requirements Regulation 2, Capital Requirements Directive IV (V), as well as the relevant regulatory technical standards, implementing technical standards and guidelines of the European Banking Authority; Single Supervisory Mechanism (SSM) Regulation and SSM Manual of the European Central Bank; key publications and papers on supervision, e.g. Prudential Supervisory Guideline (<i>Aufsichtsrichtlinie</i>), the various minimum requirements; Basel II and Basel III frameworks.</p>
Objectives of professional competence	<p>Students will learn about the practical tasks and processes of the resolution function. They will gain an overview of the importance of the national resolution authority for safeguarding financial stability. Students will learn about the distribution of responsibilities between the SRB and BaFin. They will gain an understanding of typical tasks, be familiar with the requirements and have an overview of the relevant legal regulations.</p>

Syllabus	<p>Implementation of the resolution regime as part of the Single Resolution Mechanism (SRM), including:</p> <p>policy issues and the development of methods and instruments for resolution planning and the resolution of banks and financial market infrastructures, e.g. regarding the minimum requirements for own funds and eligible securities (MREL) and the bail-in tool;</p> <p>institution-specific resolution planning, e.g. preparation of resolution plans, as well as strategic corporate analysis, the determination of resolution strategies and the assessment of resolvability, including the identification of impediments to resolution;</p> <p>preparation, i.e. design, implementation and further development of crisis processes, crisis infrastructure as well as crisis governance of the business area;</p> <p>collection of the bank levy and management of the Restructuring Fund.</p>
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4 Bachelor's thesis

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P1	Foundation course						P1	Advanced study						P2	In-depth study 1						Practical study 3			In-depth study 2			Bachelor's thesis			Practical study 4			Pa per / ora l exa m		

Study stage	Bachelor's thesis
Degree programme	Bachelor of Science, Zentralbankwesen/Central Banking degree programme
Study stage code	BT
Type	Mandatory component of the career development examination; the quantitative, English-language and legal content varies depending on the topic
ECTS credits	12 ECTS credits (Preparation: 10 ECTS credits; Defence of Bachelor's thesis: 2 ECTS credits)
Academic workload	360-hour workload
Duration	Preparation time: 8 weeks
Prerequisites	Bachelor's thesis: Pass the module examinations of the study stages pursuant to Section 12(2) sentence 1 numbers 1 to 7 of the GBankDVDV Defence of Bachelor's thesis: Pass the Bachelor's thesis pursuant to Section 20(1) of the GBankDVDV
Form of examination	Bachelor's thesis: Prepare an academic paper within 8 weeks (Section 19 of the GBankDVDV) Defence of Bachelor's thesis (Section 20 of the GBankDVDV): – 15-minute presentation of the main content and conclusions of the Bachelor's thesis – 15-minute oral examination with technical questions on the Bachelor's thesis and the presentation
Examination date	Bachelor's thesis: Following in-depth study 2 Defence of Bachelor's thesis: Following practical study 4
Academic objectives	In the Bachelor's thesis, students demonstrate their ability to work independently on a problem relevant to the study objectives using academic methods within a specified period of time. By defending their Bachelor's thesis, students will prove that they have acquired sound knowledge of the topic they worked on and that they are able to explain and substantiate the methods employed and results obtained.
Preliminary reading	Stichel-Wolf, C./Wolf, J.: Wissenschaftliches Arbeiten und Lerntechniken, latest edition. Vollmer, H. U./Brauner, D. J.: Erfolgreiches wissenschaftliches Arbeiten. Seminararbeit – Bachelor-/Masterarbeit – Doktorarbeit, latest edition.

The course concludes with a **final oral examination**. The final oral examination represents an opportunity for the students to prove within the context of an interdisciplinary examination meeting that they are able to interrelate the content of the theoretical study modules and to prove that the knowledge and skills they acquired are sufficient to meet the requirements of the Bundesbank's Upper Intermediate Service. The final oral examination lasts 15 minutes and can be carried out as a group examination (maximum group size – four people). A student is considered to have passed the career development examination when the number of module examinations prescribed in the curriculum, the Bachelor's thesis, the defence of the Bachelor's thesis and the final oral examination have each been passed or have been previously recognised. Upon successful completion of the course, students acquire 180 credits under the European Credit Transfer and Accumulation System.