

**Attachment 2 to the Study course regulation
Description of modules and subjects
of the study course **Information science & economy****

A. INFORMATION SCIENCE

A 1. Elements of information science

[1st sem.: 3L LN]

- Information within information industry and the information society
- Specifics of information markets
- Elements of the evaluation of and the search for information
- Organising information activities: From the information service to the data warehouse
- Historical developmental outlines of the information sector

A 2. Theory of Science

[2nd sem.: 2L]

- Meaning and role of science within the information society
- scientific statistics and empirical **science research**
- Systematic view on science

A 3. Information resources

[1st sem.: 2 SU, 2nd sem.: 2EU]

- Spectrum of relevant information resources by types and tenders
- Presentation of selected examples

A 4. Information sociology, politics and ethics

[2nd sem.: 2L, 3rd sem.: 2L]

- Outlines and structures of the developing information society
- Role of information and of information transfer within essential social subsystems (e. g. science, economics)
- Developmental outlines of information politics and their effects on the information sector (with focus on Germany and European Union)
- Information ethics

A 5. Language engineering

[3rd sem.: 2 SU]

- Linguistic elements of automated word-processing

A 6. Library science

[1st sem.: 2L]

- Current library sector structures: Basis for the function of information resources and service providers

A 7. Media and communication

[2nd sem.: 2 SU]

- Characteristics and typology of media and their impact on the information process

- Important communication models
- Structural conditions and functions of media in the industrial societies
- Information as a media market good
- Methods for criticism of information sources

A 8. English for information economists

[1st sem.: 2L]

B. ECONOMY

[module-specific examination at the end of the 3rd semester]

B 1. Elements of economy and economics

[1st sem.: 3L LN]

- Economics and economy as parts of the economic sciences
- Company structures

B 2. Economy

[2nd sem.: 2L]

- Typology of companies
- Elements of accounting and balancing
- Investment accounting

B 3. Business Management

[3rd sem.: 2L]

- Organisation-theoretic approaches
- Personnel economics approaches
- Management functions
- Introduction to controlling and strategic information planning
- New Controlling model ('Neues Steuerungsmodell') in [German] public administration

B 4. Information law

[2nd sem.: 2L, 3rd sem.: 2 SU]

- Teleservice law, copyright law, Law of teleservice and data protection, Law of the digital signature
- Planning contracts for network usage
- Problems of civil right and criminal law liability
- International civil right, international civil court right

B 5. Company-internal communication

[3rd sem.: 2 SU]

- Communicational structures within organisations (interpersonally, technically)
- Organisational level
- Conceptual approaches

B 6. Statistics

[1st sem.: 1 SU 1 EU, 2nd sem.: 1 SU 1 EU LN]

- Elements of descriptive and inductive statistics
- Introduction to statistics software

B 7. Mathematics for information economists
[3rd sem.: 2 SU CP]

- Analysis and linear algebra (incl. optimisation)

C. INFORMATION INDEXING & RETRIEVAL

C 1. Elements of subject cataloguing and indexing
[1st sem.: 2L 2EU, 2nd sem.: 2 SU]

- Conceptual, linguistic and order theory elements of subject cataloguing and indexing of media and information
- Principals of terminologically controlled documentation languages (Classification schemes, thesauri)
- Elements of automated indexing as well as specific information retrieval procedures

C 2. Subject cataloguing of information contents
[2nd sem.: 2 SU, 3rd sem.: 2 SU LN]

- Presentation of concrete auxiliaries for cataloguing and indexing information contents and their practice-oriented application within information economy relevant context (indexing, abstracting)

C 3. Information retrieval
[3rd sem.: 2L 2LP LN]

- Theory and advanced methods of information retrieval
- Analysis of selected examples

D. INFORMATION AND COMMUNICATION TECHNICS

[module-specific examination at the end of the 3rd semester]

D 1. Elements of data processing
[1st sem.: 2L 2LP, 2nd sem.: 1L 1LP CP]

- **1st semester:** Elements: Hardware; operating system; software applications
- **2nd semester:** Concepts and practice of structured programming

D 2. Elements of telecommunication
[1st sem.: 1L, 2nd sem.: 1L, 3rd sem.: 2 LP CP]

- **1st semester:** Communication networks; transmission media
transmission technics
- **2nd semester:** Data communication within networks
- **3rd semester:** Practical application of communication technics, integration of communication

D 3. Databases
[3rd sem.: 2 SU]

- Databases (drafts, development), data models

D 4. Human being-computer interaction
[2nd sem.: 2 SU]

- Elements of software ergonomics
- Design of dialog systems

D 5. Retrieval software
[3rd sem.: 2 SU]

- Online-Retrieval in external databases
- Retrieval languages

E. INFORMATION MARKETING

[module-specific examination at the end of the 4th semester]

E 1a. Typology and marketing of information services
[4th sem.: 2L CAC]

- Description of information services as collection, preparation and intermediation of differently structured information
- Division of information services into active/passive and functional ones
- Information marketing specifics

E 1b. Technics of data investigation, evaluation and analysis
[4th sem.: 2L CAC]

- Data investigation, analysis, evaluation
- Conception and design of questionnaires

E 2. Marketing strategies
[4th sem.: 2 SU]

- Elements of marketing and service marketing
- Marketing strategies for information economists
- Marketing measures: market and customers' analysis, design of information offerings, advertising and distribution, customers' orientation, controlling
- Analysis of marketing strategies and activities of information providers

E 3. Communicative behaviour
[4th sem.: 2LP CP]

- Individual communication (colleagues, customers, roles)
- Target group-oriented communication

E 4. Seminar 1 or Seminar 2
[4th sem.: 2S CAC]

F. BUSINESS INFORMATION MANAGEMENT

[module-specific examination at the end of the 6th or 7th semester]

F 1a. Models and concepts of business management
[4th sem.: 2L CAC]

- Methods for observation, analysis and optimising of information flow

F 1b. Project management
[4th sem.: 2L CAC]

- Organisation and realisation of projects and their support by IT-supported tools

F 2. Controlling and strategic information planning

[4th sem.: 2SU CP]

- index numbers' analysis for the purpose of strategic objective planning (internal, competitors, environment)
- Controlling as instrument
- Company objectives and company politics

F 3. Business information systems

[6th sem.: 2LP CP]

- Analysis of business information, documentation, archiving and management information systems
- Workflow analysis (including office communication)

F 4. Seminar 1 or Seminar 2

[4th sem.: 2S CAC LN] *

G. GLOBAL STRUCTURES OF THE INFORMATION INDUSTRY

[module-specific examination at the end of the 6th or 7th semester]

G 1a. Supra-national information markets

[4th sem.: 2L CAC]

- Subject, product- and company-specific information structures and markets

G 1b. Costs of information acquisition: an international comparison

[4th sem.: 2L CAC]

- Costs for data and telecommunication as well as for information products

G 2. The global information market (in English)

[4th sem.: 2 SU CP]

- Globalisation and their impact on the information industry

G 3. Information networks

[6th sem.: 2 LP CP]

- Analysis of technical frameworks of different information networks and their impact on the **providers' market**: status quo and perspectives

G 4. Seminar 1 or Seminar 2 (in English)

[6th sem.: 2 S LN]

* Concerning the certificates of type LN to the seminars of the subject courses E, F, H and K, marked with an asterisk (*), two seminars are to be chosen for which a certificate of type LN must be adduced.

H. INFORMATION CONTENTS

[module-specific examination at the end of the 7th semester]

H 1a. Automated indexing[6th sem.: 2L CAC]

- Presentation of principals and procedures of automated indexing
- Presentation of practical software-supported procedures

H 1b. Non-textual information contents[6th sem.: 2L CAC]

- Cataloguing and indexing of Information of textual-based objects (images, film sequences, sounds, ...)

H 2. Visualisation of information spaces[6th sem.: 2 SU CP]

- Principals of visualising of data
- Presentation and use of selected tools

H 3. Factual information[7th sem.: 2 LP CP]

- Data modelling, draft of the retrieval component, visualisation of search procedures and results

H 4. Seminar 1 or Seminar 2[7th sem.: 2 S LN] ***K. INFORMATION ENGINEERING**[module-specific examination at the end of the 7th semester]**K 1a. Design of user interfaces**[4th sem.: 2L CAC]

- Draft and implementation of user interfaces according to standards and regulations
- Tools for implementation of graphical user interfaces

K 1b. Object-oriented programming[4th sem.: 2L CAC]

- Concepts and practice of object-oriented programming and modelling
- Re-usability of programs

K 2. Digital publishing[6th sem.: 2SU CP]

- Procedures of digital data representation
- Data formats and procedures of data conversion
- Procedures of production of digital publications, types of products

K 3. Multi-media products[7th sem.: 2 LP CP]

- Conception and production of prototypical multi-media products

K 4. Seminar 1 or Seminar 2
[7th sem.: 2S LN] *

L. INDUSTRY-SPECIFIC INFORMATION (Please choose 5 courses!)

Within the respective partial subject courses the following topics are treated:

- Branch-specific information needs
- Branch-specific Information sources and services
- Branch-specific mechanisms of the information market

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|----------|--------------------------------------|
| L 1 CAC | Media |
| L 2 CAC | Public administration |
| L 3 CAC | Chemical and pharmaceutical industry |
| L 4 CAC | Medicine / Health services |
| L 5 CAC | Small and middle-sized companies |
| L 6 CAC | Transnational companies |
| L 7 CAC | Law |
| L 8 CAC | Touristics |
| L 9 CAC | Research, technics, development |
| L 10 CAC | End-user markets |

P. PRACTICAL TRAINING SEMESTER / PROJECT

P 1. Tutoring of the practical training semester

P 2a. Project work 'information brokering'
[6th or 7th sem.: P CAC LN]

P 2b. Project work 'information management'
[6th or 7th sem.: P CAC LN]

W. OPTIONAL COURSES ACCORDING TO FHG § 56 (3), 2

W 1. Foreign languages

W 2. Introduction to **academic/scientific** working methods

W 3. Optional courses according to the current university calendar

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| MSE | Module-specific examination | LN * | 2 seminar certificates are to be adduced. |
| LN | Certificate of type LN | CP | Certificate of participation |