

Recommended pass through the study plan

Name of the pass: Systematic Integration of Processes in Healthcare 24/25, 25/26

Faculty/Institute/Others:

Department:

Pass through the study plan: Systematic Integration of Processes in Healthcare - combined study

Branch of study guaranteed by the department: Welcome page

Guarantor of the study branch:

Program of study: Systematic Integration of Processes in Healthcare

Type of study: Follow-up master combined

Note on the pass: Informaci o p edepsaném minimálním po tu PV p edm t pro konkrétní jednotlivé semestry najdete v odpovídajícím studijním plánu programu.

Coding of roles of courses and groups of courses:

P - compulsory courses of the program, PO - compulsory courses of the branch, Z - compulsory courses, S - compulsory elective courses, PV - compulsory elective courses, F - elective specialized courses, V - elective courses, T - physical training courses

Coding of ways of completion of courses (KZ/Z/ZK) and coding of semesters (Z/L):

KZ - graded assesment, Z - assesment, ZK - examination, L - summer semester, Z - winter semester

Number of semester: 1

| Code | Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) <i>Tutors, authors and guarantors (gar.)</i> | Completion | Credits | Scope | Semester | Role |
|-----------|--|------------|---------|-------|----------|------|
| F7KMS1AM | Applied Mathematics <i>David Vrba David Vrba David Vrba (Gar.)</i> | Z,ZK | 5 | 8P+8S | Z | z |
| 17BOZP | Occupational Safety and Health, Fire Protection and First Aid <i>Petr Kudrna Petr Kudrna Petr Kudrna (Gar.)</i> | Z | 0 | 1P | Z | z |
| F7KMS1EKZ | Economic Aspects of Healthcare <i>Lucie Severová, Martina Caihamlová, Petra Hospodková Petra Hospodková Lucie Severová (Gar.)</i> | Z,ZK | 5 | 8P+8S | Z | z |
| F7KMS1IZZ | Information Sources in Healthcare <i>Gleb Donin, Vojt ch Kamenský Vojt ch Kamenský Gleb Donin (Gar.)</i> | KZ | 3 | 4P+8S | Z | z |
| F7KMS1MV | Methodology of Research <i>Jakub Ráfl Jakub Ráfl Jakub Ráfl (Gar.)</i> | KZ | 5 | 8P+4S | Z | z |
| F7KMS1RNZ | Management of Costs in Healthcare <i>Martina Caihamlová Petra Hospodková Petra Hospodková (Gar.)</i> | KZ | 5 | 8P+8S | Z | z |
| F7KMS1VZ1 | Public Health I. <i>Jan B íza, V ra Adámková Jan B íza V ra Adámková (Gar.)</i> | ZK | 5 | 8P | Z | z |
| F7KMS1VPZ | Selected Processes in Healthcare Facilities <i>Milan Bedna ík Milan Bedna ík Milan Bedna ík (Gar.)</i> | KZ | 2 | 4P+4S | Z | z |

Number of semester: 2

| Code | Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) <i>Tutors, authors and guarantors (gar.)</i> | Completion | Credits | Scope | Semester | Role |
|------------|--|------------|---------|--------|----------|------|
| F7KMS1BE | Business English <i>Jitka Mari áková Jitka Mari áková Jitka Mari áková (Gar.)</i> | KZ | 2 | 8S | L | z |
| F7KMS1EZZ | Economy of Healthcare Facilities <i>Martina Caihamlová, Petra Hospodková Petra Hospodková Petra Hospodková (Gar.)</i> | Z,ZK | 4 | 12P+8S | L | z |
| F7KMS1HZT | Health Technology Assessment <i>Aneta Benešová, Gleb Donin, Martina Holá, Karla Mothejlová, Ond ej Gajdoš Martina Holá Ond ej Gajdoš (Gar.)</i> | Z,ZK | 4 | 12P+8S | L | z |
| F7KMS1OP | Professional Training <i>Petra Hospodková Jan B íza (Gar.)</i> | Z | 2 | 160XH | L | z |
| F7KMS1PLPT | Overview of Medical Devices <i>Petr Kudrna, Martin Rožánek, Petr Volf Petr Volf Martin Rožánek (Gar.)</i> | Z,ZK | 4 | 12P+8L | L | z |
| F7KMS1RP | Annual Project <i>Ond ej Gajdoš Gleb Donin Gleb Donin (Gar.)</i> | Z | 3 | 8S | L | z |
| F7KMS1RLZ | Management of Human Resources <i>Petra Hospodková, Zuzana Dvo áková Petra Hospodková Zuzana Dvo áková (Gar.)</i> | Z,ZK | 4 | 8P+4S | L | z |
| F7KMS1VZ2 | Public Health II. <i>Jan B íza, V ra Adámková Jan B íza V ra Adámková (Gar.)</i> | Z,ZK | 5 | 8P | L | z |

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|-----------|---|----|---|-------|---|---|
| F7KMS1FU | Financial Accounting of Healthcare Facilities <i>Martina Caithamlová Martina Caithamlová Martina Caithamlová (Gar.)</i> | KZ | 2 | 4P+4S | L | s |
| F7KMS1TP | Team Project <i>Vladimír Soukup Vladimír Soukup (Gar.)</i> | KZ | 2 | 8S | L | s |
| F7KMS1ZAD | Fundamentals of Data Analysis <i>Gleb Donin, Vojt ch Kamenský Vojt ch Kamenský Gleb Donin (Gar.)</i> | KZ | 2 | 8S | L | s |

Number of semester: 3

| Code | Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) <i>Tutors, authors and guarantors (gar.)</i> | Completion | Credits | Scope | Semester | Role |
|------------|--|------------|---------|--------|----------|------|
| F7KMS1BSCD | Statistical Methods in the Analysis of Clinical Studies <i>Vojt ch Kamenský</i> | Z,ZK | 5 | 4P+12S | Z | z |
| F7KMS1EHIS | E-Health and Information Systems in Healthcare | Z,ZK | 5 | 8P+4S | Z | z |
| F7KMS1IP | Individual Training <i>Martina Caithamlová</i> | Z | 2 | 80XH | Z | z |
| F7KMS1LKH | Legislation in Healthcare and Clinical Evaluation <i>Vojt ch Kamenský</i> | Z,ZK | 5 | 12P+8S | Z | z |
| F7KMS1MZZ | Management of Medical Facilities <i>Petra Hospodková</i> | Z,ZK | 5 | 8P+8S | Z | z |
| F7KMS1SDP1 | Diploma Thesis Seminar I. <i>Gleb Donin</i> | Z | 5 | 8S | Z | z |
| F7KMS1EE | Economic Evaluation of Healthcare Programmes <i>Vojt ch Kamenský</i> | KZ | 3 | 8P+4S | Z | s |
| F7KMS1PR | Project Management | KZ | 3 | 8P+4S | Z | s |
| F7KMS1STT | Smart Technologies and Telemedicine in Healthcare | KZ | 3 | 8P+4L | Z | s |

Number of semester: 4

| Code | Name of the course / Name of the group of courses (in case of groups of courses the list of codes of their members) <i>Tutors, authors and guarantors (gar.)</i> | Completion | Credits | Scope | Semester | Role |
|------------|--|------------|---------|--------|----------|------|
| F7KMS1IZS | Integrated Rescue System and the Disaster Medicine | ZK | 4 | 8P | L | z |
| F7KMS1MZT | Health Technology Management <i>Petr Volf</i> | KZ | 5 | 12P+4S | L | z |
| F7KMS1RKZ | Quality Management in Healthcare <i>Vojt ch Kamenský</i> | Z,ZK | 5 | 12P+8S | L | z |
| F7KMS1SDP2 | Diploma Thesis Seminar II. | Z | 4 | 8S | L | z |
| F7KMS1SZZ | Strategy of Healthcare Facilities <i>Martina Caithamlová</i> | KZ | 2 | 8P | L | z |
| F7KMS1DP | Diploma Thesis | Z | 8 | 4XT | L | z |
| F7KMS1EM | Enviromental Management of Medical Facilities | KZ | 2 | 8P+4S | L | s |
| F7KMS1JIP | Icus and Mobile Healthcare Units | KZ | 2 | 8P+4L | L | s |
| F7KMS1BMH | Basics of Modelling in Healthcare <i>Vojt ch Kamenský</i> | KZ | 2 | 8P+4L | L | s |

List of groups of courses of this pass with the complete content of members of individual groups

List of courses of this pass:

| Code | Name of the course | Completion | Credits |
|--------|---|------------|---------|
| 17BOZP | Occupational Safety and Health, Fire Protection and First Aid | Z | 0 |

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| F7KMS1AM | Applied Mathematics | Z,ZK | 5 |
| The course Applied Mathematics combines both theoretical knowledge and practical skills. Theoretical knowledge is necessary to formulate a mathematical model and then to solve decision-making and optimization problems in economic processes. Practical knowledge is trained by solving concrete situations using sample examples, where students are introduced to specific methods and techniques of mathematical data analysis. | | | |
| F7KMS1BE | Business English | KZ | 2 |
| F7KMS1BMH | Basics of Modelling in Healthcare | KZ | 2 |
| F7KMS1BSCD | Statistical Methods in the Analysis of Clinical Studies | Z,ZK | 5 |
| F7KMS1DP | Diploma Thesis | Z | 8 |
| F7KMS1EE | Economic Evaluation of Healthcare Programmes | KZ | 3 |
| F7KMS1EHIS | E-Health and Information Systems in Healthcare | Z,ZK | 5 |
| F7KMS1EKZ | Economic Aspects of Healthcare | Z,ZK | 5 |
| This course introduces students to the fundamentals of health care economics, providing an understanding of the basic approaches to the study of health care as an important sector of the national economy. It introduces the market in health care, the occurrence of sub-market structures in health care, the supply of health care, the demand for health care and its specifics, and familiarizes students with tools for rationalizing supply and demand. In addition, the course discusses the issue of public goods, and introduces students to the concept of market failure and its forms. In terms of macroeconomics, the course deals primarily with the health sector as part of the national economy, the importance of the public sector in the national economy, and the functions of the public sector. The role of the state in the national economy is introduced. The financing of health care - sources, financial flows and forms of payment - is also discussed. Students are also introduced to basic macroeconomic concepts such as inflation, unemployment and gross domestic product. Upon successful completion, students will be able to better understand the functioning of the economic system as a whole and the economic aspects of health care. | | | |
| F7KMS1EM | Environmental Management of Medical Facilities | KZ | 2 |
| F7KMS1EZZ | Economy of Healthcare Facilities | Z,ZK | 4 |
| F7KMS1FU | Financial Accounting of Healthcare Facilities | KZ | 2 |
| The course is designed as a theoretical and practical unit. Accounting is an indispensable source of information to support decision-making processes for managers and other stakeholders. The aim of the course is to introduce students to accounting issues, to familiarize them with the importance of accounting and its place in the management system of the organization. Emphasis is placed on practical application using selected model examples. | | | |
| F7KMS1HZZ | Health Technology Assessment | Z,ZK | 4 |
| F7KMS1IP | Individual Training | Z | 2 |
| Individual practice is related to the subject Professional practice. A student who has already completed the Professional Practice course has the opportunity of profiling in a selected medical facility. Individual practice is an integral part of quality and qualified preparation for the future profession. During the internship, the student gets the opportunity to practice theoretical knowledge in the form of independent work under the guidance of a professional worker. Individual practice is a form of teaching where students are placed in individual workplaces in medical institutions or in manufacturing or service organizations in the field of medical devices on the basis of agreement and written recommendation of the faculty. Here, based on a set plan, students acquire in-depth practical skills and work independently under the supervision of a designated member of staff. The work experience in the selected workplaces must be of a high professional standard. During the individual practice, all hygiene, safety and other regulations given for the specific workplace are observed. Students are familiarised with the workplace operating rules. The practice is supervised and evaluated by the supervisor. The internships of the students of the study programme System Integration of Processes in Healthcare are focused mainly on the legislative area, quality control and management, medical documentation, reporting of performance to health insurance companies, selection procedures, preparation and implementation of medical equipment purchases, work with information systems, internal audit, material and technical supply, personnel management, record keeping, statistical reporting, planning, process coordination and other activities. | | | |
| F7KMS1IZS | Integrated Rescue System and the Disaster Medicine | ZK | 4 |
| F7KMS1IZZ | Information Sources in Healthcare | KZ | 3 |
| F7KMS1JIP | Icus and Mobile Healthcare Units | KZ | 2 |
| The course provides an overview of resuscitation and intensive care in the ARO, departmental and mobile ICUs, including instrumentation and physiological context. The aim of the course is to familiarize students with current trends in biomedical engineering in this field. The course assumes a basic knowledge of internal medicine and surgery in particular. Upon completion, the student should be able to actively collaborate with the clinician and propose optimal solutions when necessary. | | | |
| F7KMS1LKH | Legislation in Healthcare and Clinical Evaluation | Z,ZK | 5 |
| F7KMS1MV | Methodology of Research | KZ | 5 |
| F7KMS1MZZ | Health Technology Management | KZ | 5 |
| F7KMS1MZZ | Management of Medical Facilities | Z,ZK | 5 |
| F7KMS1OP | Professional Training | Z | 2 |
| Professional practice is focused on learning about the activities of a manager in a healthcare facility or in a manufacturing or service organization in the healthcare sector. The aim is to acquire practical habits and skills for future employment in professional life, not only in terms of acquiring professional skills, but also working in a team. Areas of activity: - Activities in the field of medical record keeping (medical procedures, collection and processing of data for billing of health care to insurance companies, reporting system, tracking and management of costs for high-cost care, etc.). - Participation in the activities of the controlling/internal audit department, familiarization with the organization's budgets, evaluation of the performance of individual departments, complaints agenda, etc. - Participation in the processing of source data for economic decisions (providing input for further planning, participation in partial economic analyses, etc.). - Familiarisation with the area of medical equipment acquisition, including the issue of tendering procedures, preparation of documents for public procurement, drafting of medical technology kits, as well as familiarisation with the area of technical briefings for workers in the field of medical technology and occupational safety. - Familiarization with investment planning, depreciation plan, servicing of medical technology, recording of fixed assets in the organization. - Familiarisation and subsequent work with information systems (hospital IS, laboratory IS, management IS and others). - Archiving of medical documentation. - Evaluation and creation of technical documentation of medical devices. - Human resources management in the organisation - personnel planning, strategic planning in the field of HRM, training system, application of labour legislation, recruitment and selection of employees, personnel agenda, participation in support activities in the field of human resources management. - Quality control and management in healthcare institutions (implementation of quality standards in the hospital and follow-up quality standards, quality improvement processes, audits of healthcare activities, monitoring of adverse events and their resolution, documentation). - Integration of processes in healthcare facilities. The student has to undergo compulsory practice in the economic (min. 40 hours), personnel (min. 20 hours), technical (min. 40 hours) and quality (min. 20 hours) departments. Further (more detailed) focus depends on the nature of the organisation's activities. | | | |
| F7KMS1PLPT | Overview of Medical Devices | Z,ZK | 4 |
| F7KMS1PR | Project Management | KZ | 3 |
| F7KMS1RKZ | Quality Management in Healthcare | Z,ZK | 5 |
| F7KMS1RLZ | Management of Human Resources | Z,ZK | 4 |
| F7KMS1RNZ | Management of Costs in Healthcare | KZ | 5 |
| F7KMS1RP | Annual Project | Z | 3 |
| F7KMS1SDP1 | Diploma Thesis Seminar I. | Z | 5 |
| F7KMS1SDP2 | Diploma Thesis Seminar II. | Z | 4 |
| F7KMS1STT | Smart Technologies and Telemedicine in Healthcare | KZ | 3 |

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|--|---|------|---|
| F7KMS1SZZ | Strategy of Healthcare Facilities | KZ | 2 |
| The long-term successful existence of any market entity depends on a clear idea of long-term strategy. Increasing competition, rising demand for healthcare services, growing patient demands and significant developments in medical science characterise the state of the contemporary healthcare sector. These facts make the management of healthcare facilities increasingly challenging and complex. This course introduces students to the fundamentals and phases of strategic management, the principles of strategy development and management applied to the conditions of a healthcare facility. It analyzes the different concepts: mission - vision - mission - strategic goals - strategic plan, different forms of strategies and principles of their management. It deals with the formulation of the strategy itself, its communication, implementation of the strategy - especially from the point of view of application of appropriate means and methods used in transformation of the top goals of the enterprise as a whole to lower responsibility and process levels - and providing information feedback, i.e. verifying whether the set goals are being met. The course also includes the analysis of the business plan environment, the creation of scenarios and their application in strategic planning. | | | |
| F7KMS1TP | Team Project | KZ | 2 |
| F7KMS1VPZ | Selected Processes in Healthcare Facilities | KZ | 2 |
| F7KMS1VZ1 | Public Health I. | ZK | 5 |
| F7KMS1VZ2 | Public Health II. | Z,ZK | 5 |
| F7KMS1ZAD | Fundamentals of Data Analysis | KZ | 2 |

For updated information see <http://bilakniha.cvut.cz/en/FF.html>

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