

Academic E-sports, bachelor's program

STUDY PROGRAM AND COURSE DESCRIPTIONS

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Academic E-sports, bachelor's program

180 credits – 3 years – Grimstad

Admission requirements

For national applicants, the application process runs through The Norwegian Universities and Colleges Admission Service (“Samordna opptak”), and the entrance requirement is Higher Education Entrance Qualification (“generell studiekompetanse”).

For international applicants, entrance requirements are Higher Education Entrance Qualification for international applicants and certified language requirements in English.

The general basis for admission to universities and university colleges in Norway is called Higher Education Entrance Qualification. You may find what is considered university entrance qualifications from your country in the “GSU” list. This list states the basic requirements for admission to higher education in Norway. Please download the latest version of the 'GSU' list from <http://www.nokut.no/en/Facts-and-statistics/Surveys-and-databases/GSU-list/> this website.

General description and profile of the program

This study program aims to understand, develop and utilize competences connected through the use of organized gaming, also known as E-sports. An overall objective is to understand the differences between gaming, competitive E-sports and academic E-sports, and be able to broaden the area in which E-sports might be valuable.

The study program focuses on academical, physiological, sociological, and psychological aspects of academic E-sports. Topics such as programming, multimedia content and development, digital security as well as innovation and economics are also included. When finishing the bachelor's program, the student will have a broad knowledge of the E-sports industry and have chosen to specialize in one of four directions within E-sports based on interest. The specialization will be determined in the preliminary project and in the bachelor thesis. The specializations are as follows:

- E-sports athlete or manager
- The E-sports industry (media, coach, designer, etc.)
- Technology and innovation
- Education and Health

Course structure diagram

1. sem	IDR1XX General Introduction to Exercise 5 sp	MM-1XX Game History 5 sp	PS-1XX Psychology and ethics 5 sp	MM-1XX Video and Audio 5 sp
	MM-1XX E-sport 1 Practice 10 sp			
2. sem	IDR1XX General Introduction to Sports 5 sp	MM-1XX Gamedesign 5 sp	MM-1XX E-sports in Education and Society 5 sp	MM-1XX Game Statistics, Maps and Logistics 5 sp
	MM-1XX E-sport 2 Practice 10 sp			
3. sem	IDRXXX Nutrition, Recovery and Athletic Performance 5 sp	IDRXXX Technology in Sports 5 sp	MM-XXX Programming 1 Automation and Gaming 5 sp	MM-XXX Remote Operated Vehicles 5 sp
	IDRXXX- E-sport 3 Practice 10 sp			
4. sem	IDRXXX Sports Injuries and Ergonomics 5sp	IDRXXX Teams and Performance Culture 5 sp	MM-XXX Programming 2 Useful Technology 5 sp	MM-XXX <u>Entrepreneurship</u> 5 sp
	MM-XXX E-sport 4 Practice 10 sp			
5. sem	IDRXXX Scientific Methods and Statistics 10 sp		MM-XXX <u>Branding</u> 5sp	MM-XXX Digital Security 5 sp
	IDRXXX E-sport 5 Practice 10 sp			
6. sem	MM-XXX Preliminary Project 5 sp	MM-XXX Economy and Innovation 5 sp	MM-XXX Bachelor Thesis 20 sp	

In the 5th semester the students have the opportunity to take an exchange semester abroad at one of our partner universities.

Learning outcomes

Knowledge

On successful completion of the program, the candidate should be able to:

- Understand terms, activities and methods used in E-sports and other sports
- Understand E-sports in society as a whole and in education in particular
- Recognize research and development in the field
- Understand how the body moves and basic physiology

- Identify technology for monitoring training, nutrition and practice, and understand basic principles for documentation
- Identify injuries related to E-sports and how to prevent them
- Recognize basic physical, mental and social benefits from physical activities, and be able to discuss physical and mental training
- Understand the term ethics, and identify ethical conflicts related to the use of games or in sports
- Discuss psychological issues concerning games and sports
- Understand basic statistics related to E-sports in particular and sports in general
- Recognize and acknowledge digital rules and general digital security
- Understand different types of games and tournaments related to them
- Understand both hardware and software related to E-sports and be able to utilize it both individually and commercially
- Understand the importance of technology in general and in particular related to sports
- Use the knowledge and skills required through the study program to update his/her knowledge in the field

Skills

On successful completion of the program, the candidate should be able to:

- Create, plan, produce and distribute multimedia content such as graphics, sound and video, and build their own brand
- Create work-out plans and programs using different digital tools
- Use information and advice based on relevant research on nutrition and recovery related to performance
- Work individually and in groups on different platforms and in different game related situations
- Play and train/instruct others in the most frequently used games in E-sports
- Organize and participate in tournaments
- Secure and protect hardware and information in a safe and legal fashion
- Use E-sports as a didactic tool through student active approaches to learning

General competence

On successful completion of the program, the candidate should be able to:

- Promote collaboration
- Identify digital security issues and implement basic security measures for online activities
- Have knowledge of digital privacy regulations and explain them to others
- Plan, execute and evaluate projects based on ethical demands and guidelines
- Express academic issues and challenges both orally and in writing
- Understand innovation processes in the field of academic E-sports
- Promote the use of problem-based learning for solving tasks related to E-sports
- Organize, develop and create a project based on given criteria

Teaching and learning methods

Academic E-sports is a relatively new field in higher education, requiring varied teaching and learning methods balancing theory and practice. Through the use of a practice course every semester, it is possible to experiment and enable the students to try out new things. The practice course will implement tasks given from all other courses in a semester and provide an arena in which the students can experience the use of the skills they acquire. How these tasks are solved will be determined in close collaboration between teachers and students.

The study program implements elements of problem-based learning, flipped classroom and other student active approaches to learning. The use of technology and digital applications will be prominent. This includes the use of training apps, media platforms, multimedia tools and different gaming platforms. Lectures, seminars and discussions are also parts of the program. In a rapidly changing environment, it is of the utter importance that the students play an active role in both teaching processes and evaluations. See each course description for details on teaching and learning methods.

Assessment methods

The examination requirements and forms are varied and adjusted to the content of each course. The assessment methods are written individual exams, home exams, portfolio assessment and compulsory group work with written or oral presentations as well as group discussions and group presentations. A 20 ECTS assignment with an oral presentation and examination based on the preliminary project handed in and approved in advance, will be the completion of the study program. See each course description for details on assessment.

Internationalization

The study program in academic E-sports is an international bachelor's program taught in English. The bachelor's program recruits both Norwegian students and international students from all over the world. UiA cooperates with universities from other parts of the world in both research and exchange programs. International projects will provide a greater understanding of E-sports as a research field as well as create valuable international experiences.

In the 5th semester in the bachelor's program it is possible to go abroad for student exchange. The students will receive more information about international partner universities and the possibilities for student exchange when starting the program.

Occupational profiles of graduates and access to further studies

Job opportunities for candidates from the bachelor's program in academic E-sports are diverse. Several businesses ask for E-sports or gaming background when hiring, and more are coming. The candidates will be qualified to work with communication, marketing, audio and video, business development, sales, programming, design, coaching of various kinds as well as content providers to the gaming industry. There will also be an increasing demand for expertise related to the use of SoMe (social media) and the production and implementation of digital content on various platforms.

E-sports is also a school subject, and Norwegian legislation demands a basic competence for teaching in different programs. This program can provide the necessary competence for teachers already qualified for teaching in general.

Candidates can apply for a master's program in multimedia and educational technology at UiA. A course in 3D visualization of at least 7,5 ECTS is required for admission.

Qualification awarded

The program leads to the degree of Bachelor of Science in Academic E-sports.

Student evaluations

Student evaluations are carried out annually in the Study Program Advisory Committee in accordance with the quality system for education chapter 4.2.

Fees

Students will have to pay the mandatory student fee for studying at a university.

Other information

Students at UiA are expected to have laptops for use in learning and at examinations, cp. the Examination Regulations for the University of Agder section 12d. The laptops have to follow the requirements specified in the program information.

Responsible faculty

Faculty of Engineering and Science

General Introduction to Exercise

IDR1XX

5 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- Understand the structure and function of the musculoskeletal system, as well as basic exercise physiology.
- Demonstrate knowledge about theories concerning physical and mental training and describe and explain the content of the different training methods.
- Understand and discuss principles of endurance and resistance training, as well as the design of basic training plans for different target groups.
- Reflect upon and discuss the physical, mental, and social health effects of physical activity.

Contents

Anatomy:

- The structure and function of the musculoskeletal system

Physiology:

- Muscle and nerve cells
- Energy production and consumption
- Respiratory and circulatory system
- Neuromuscular function

Exercise theory:

- Theories of physical and mental training, as well as the design of basic training plans
- Endurance training and key training methods
- Resistance training and key training methods
- Other characteristics of physical fitness (e.g., mobility and motor skills)
- Physical activity and the link between physical, mental, and social health

Teaching and learning methods

The course is taught as a combination of lectures, group work, case discussions, and individual tasks. A selection of oral and written tasks will be mandatory.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks must be completed and approved.

An overview of all tasks will be presented at the beginning of the semester.

Examinations

3-hour written individual exam. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Game History

MM-1XX

5 credits – Autumn – 1 semester – Grimstad

Included in study.

- Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- Discuss why games and play are relevant and valuable in modern society.
- Account for the historic broad strokes of games and their cultural significance.
- Have advanced knowledge of a narrow historic game theme.
- Know terminology and theories related to games as historic and cultural artifacts and their relation to modern e-sport.
- Apply terminology and theory in the analysis of trends.

Contents

Games have played a central role in people's lives for millennia. All civilizations have used games in one form or another. Educational systems also use and mirror games as an integral part of teaching. The ongoing development of digital games and technology makes it possible to play together regardless of physical presence. Because of this, separate directions have developed within these segments of digital games. E-sports is one such direction of interest.

This course will provide an insight into the historical development of games and the impact on society, from simple holes in the ground to endless cloud-based games. The course will also introduce different types of games that students will become better acquainted with.

Teaching and learning methods

The course is taught as a combination of lectures, flipped classroom, discussions and assignments. The expected scope of work for the average student is 135 hours.

Examinations

Portfolio assessment. Overview and details will be published in Canvas at the start of the course. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm-or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Psychology and Ethics

PS-XXX

5 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should:

- Have knowledge about psychology's role in games and E-sports.
- Have knowledge about central ethical theories and concepts.
- Be able to discuss ethics specifically related to games and sports.
- Be able to discuss psychological challenges related to games.

Contents

Digital games have become widely popular, with more than two billion people playing at different levels of involvement. For most players, gaming is a positive recreational activity. However, concerns have been raised regarding detrimental effects of gaming, gaming addiction and toxic behavior in the gaming culture. On the other hand, novel research is starting to examine possible positive effects of gaming.

This course will provide insight into the current research status on gaming and E-sports. What do we know and what don't we know? What challenges are we facing? The course will look at psychological as well as ethical challenges that might occur through gaming. There will also be a focus on types of games and possible effects. The use of drugs in E-sports is also covered in this course.

Teaching and learning methods

The course is taught as a combination of lectures, flipped classroom, discussions, and mandatory tasks. The students will also be presented with many cases that will be discussed.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks must be completed and approved. An overview of all tasks will be presented in Canvas.

Examinations

Individual written assignment based on a case study. Details will be given in Canvas at the start of the semester. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Video and Audio

MM-1XX

5 credits – Autumn – 1 semester – Grimstad

Included in study

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- understand how video and audio is used within E-sports
- distribute content and communicate using services such as Twitch, YouTube and Discord
- plan and produce multimedia content in the form of graphics, video and audio
- use video capture and video overlays
- use software for audio recording and editing
- present content and communicate with other players both synchronously and asynchronously
- consider copyright and privacy issues when sharing content

Contents

Video and audio are important topics within E-sports. Video is used as an analytical tool and as a tool to present content to others. Use of video and audio to communicate is central to be able to perform.

This course introduces tools, technologies and platforms used in E-sports distribution and performance. The students will learn how to create their own content and how to distribute that content to promote and improve themselves.

Teaching and learning methods

Digital lectures with discussions and assignments.

Expected workload is 135 hours.

Examination requirements

Students must pass the compulsory assignments to take the examination. Information about the compulsory assignments will be given in Canvas by the start of the semester.

Examinations

Individual project. Details will be given in Canvas at the start of the semester. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

E-sports 1 - Practice

MM-1xx

10 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Prerequisites

The courses General Introduction to Exercise, Game History, Psychology and Ethics and Video and Sound, must be taken in parallel with or before E-sports 1.

Learning outcomes

On successful completion of the course, the students should:

- Have an understanding of E-sports in general and knowledge regarding the most played games.
- Be able to play some of the most popular games in E-sports.
- Be aware of ethical issues in games and sports.
- Understand what a game is and why they are so important to people.
- Understand the basics on how to compete in games and arrange competitions/tournaments.
- Have a basic understanding of the human body and basic training techniques.
- Be able to document play and distribute it using audio and video.

Contents

One of the most important elements in E-sports is playing games. This course will revolve around that issue. However, it is also important to understand how everything is connected from the setup of your computer to the teams you play in and how you distribute what you do. It is also important to be aware of the need for physical exercise as well as focus on nutrition and recreation.

This course is the first of five practice courses. The main focus in this course is to establish a basic knowledge of different games and how to utilize them in different contexts. The different tasks will evolve around the other courses in the semester and provide a practical approach to them. This course also includes playing games as well as providing training tips and arrange a tournament.

Teaching and learning methods

The course will be divided into different modules, all with a practical approach. Tasks will be practical in nature and the course will also include training sessions and tutoring sessions in different games.

Expected workload for the average student is 270 hours.

Examinations

Portfolio assessment with mandatory assignments. Information about the requirements for the portfolio will be given in Canvas. Graded pass/fail.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

General Introduction to Sports

IDR-955

5 credits – Spring – 1 semester – Grimstad

Included in study

Academic E-sports, Bachelor's Programme

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- Understand the role sport has in society.
- Understand relevant sports related concepts and be able to discuss them.
- Demonstrate knowledge about the holistic perspective on sports performance.
- Discuss basic decisive factors for sports performance.
- Understand basic recovery for optimal sports performance.
- Understand basic sports nutrition.

Contents

Sport in society:

- Clarification of concepts
- Sport, physical activity, exercise, and training in a societal perspective
- Basic understanding of peak performance mentality

Sports performance:

- Physical and mental training as basis for peak sports performance
- Differences between training and competition
- The individual in team building
- The individual in performance culture

Recovery:

- Recovery in a sports context
- Physical and mental recovery

Sports nutrition

- Digestion of food
- Macro- and micronutrients
- The sports nutrition pyramid

Teaching and learning methods

The course is taught as a combination of lectures, group work, case discussions, and individual tasks. A selection of oral and written tasks will be mandatory.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks must be completed and approved. An overview of all tasks will be presented in Canvas at the start of the course.

Examinations

Individual 3-days home exam. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Game Design

MM-XXX

5 credits – Spring – 1 semester – Grimstad

Included in study

Academic E-sports, Bachelor's Program

Prerequisites

Completed and passed MM-1XX Game History

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should:

- Have knowledge about what game design entails.
- Understand key concepts and theories in game design.
- Be able to discuss the advantages and disadvantages of using different types of game mechanisms.
- Be able to document simple game designs.
- Be able to analyze and evaluate game mechanisms, components, and rules.

Contents

All civilizations have used games in one form or another. Just as we have many different cultures, we also have many different types of games. Common to them is that they contain a number of mechanisms and components, each of which has its own function. In recent years, the development of digital games has exploded, and technology now makes it possible to play together regardless of physical presence. As a consequence of this, separate directions have developed, such as E-sports.

This course will provide an insight into how to design games. Students will also be challenged to design their own games.

Teaching and learning methods

The course is taught as a combination of lectures, flipped classroom, discussions and assignments.

The expected scope of work for the average student is 135 hours.

Examinations

Portfolio assessment. Information about the requirements for the portfolio will be given in Canvas.
Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm-or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

E-sports in Education and Society

MM-1XX

5 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- Understand the role of E-sports in education and society and the significance it has both formally and informally.
- Understand the differences between commercial E-sports and academic E-sports.
- Discuss advantages and challenges that occur related to E-sports.
- Use E-sports in a didactic way and understand how it might be an important educational tool.

Contents

There is a lot of uncertainty connected to which role gaming and E-sports should play in our society. One of the major concerns is how E-sports can be used as a tool for learning and progress instead of being viewed as a disruption. With the increasing numbers of active players around the world, the need for knowledge is considerable.

This course provides insight into the business of E-sports both from a commercial and an educational point of view. Students will encounter issues concerning the use of E-sports as a powerful educational tool as well as problems related to overuse and misunderstandings. In particular, the students will look at the use of games in general and E-sports in particular in the school system.

Teaching and learning methods

The course is taught as a combination of lectures, flipped classroom, discussions, and mandatory assignments. The students will also be presented with many cases that will be discussed.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory assignments must be completed and approved. An overview of all assignments will be presented in Canvas at the start of the course.

Examinations

Video presentation based on a case study, performed in groups or individually. Information about the case study and video presentation will be given in Canvas. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Game Statistics, Maps and Logistics

MM-1XX

5 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- understand E-sports in relation to the use of statistics.
- read and understand statistics in sports in general and E-sports in particular.
- understand the importance of hardware when competing and be able to make good decisions on what to use.
- navigate and understand the importance of maps in certain games.
- understand the term of logistics in an E-sports context.
- understand how E-sports tournaments are held and ran.

Contents

In E-sports, as in all other sports, statistics plays a prominent role. Statistics is an important tool for any athlete regardless of activity. It can be used to monitor individual progress, or to understand the activity and predict outcomes. Most sports today have tools that monitor statistics continuously. The use of maps in different forms are prominent in many E-sports games. The need to understand maps and be able to navigate through them is an important skill. Being able to organize and understand the basic requirements that enables you to perform is also important. Logistics encompass both individual preparations as well as organizing on a larger scale.

This course gives a basic understanding of why statistics, logistics and maps are such an important part of the e-sports sphere and why it is important for the individual player's progression. The students will also be given insight into how processes regarding the planning and execution of tournaments are made.

Teaching and learning methods

Digital lectures with discussions and assignments.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks have to be completed and approved. An overview of all tasks will be presented in Canvas. Training logs must also be approved.

Examinations

Individual written assignment. Information about the requirements for the assignment will be given in Canvas. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

E-sports 2 - Practice

MM-1XX

10 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Prerequisites

The courses General Introduction to Sports, Game Design, E-sports in Education and Society and Game Statistics, Maps and Logistics, must be taken in parallel with or before E-sports 2.

Learning outcomes

On successful completion of the course, the students should be able to:

- Play 2-3 chosen games.
- Log and document training and food.
- Have a basic understanding of the physical and nutritional requirements when competing in any sports but in E-sports in particular.
- Identify skills and competencies that make E-sports an important part of society.
- Understand the value of using games and E-sports as teaching tools.
- Understand the basic mechanics of a game.
- Understand different ranking systems in E-sports.
- Understand the minimum hardware requirements for enabling E-sports at a higher level.

Contents

One of the most important elements in E-sports is playing games. This course will revolve around that issue. However, it is also important to understand how everything is connected from the setup of your computer to the teams you play in and how you distribute what you do. It is also important to be aware of the need for physical exercise as well as focus on nutrition and recreation.

This course is a continuation of E-sports 1 and gives further insight into the gaming world and how to optimize the experience both through the right hardware and focused training sessions. This course continues to put into practice elements that are discussed in other courses. The main focus of this course is to understand the position of E-sports in society and as a learning tool. We will also focus on the use of statistics and maps and why they are important elements to master.

Teaching and learning methods

The course will be divided into different modules, all with a practical approach. Tasks will be practical in nature and the course will also include training sessions and tutoring sessions in different games.

Expected workload for the average student is 270 hours.

Examinations

Portfolio with assignments that are evaluated and approved collectively. Information about the requirements for the portfolio will be given in Canvas. Graded pass/fail.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Nutrition, Recovery, and Athletic Performance

IDR-XXX

5 credits – Autumn – 1 semester – Grimstad

Included in study

Academic E-sports, Bachelor's Programme

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- Understand how nutrition and sleep is related to athletes' health and performance.
- Understand how different recovery methods/techniques and psychological recovery may influence sports performance.
- Demonstrate knowledge about subjective and objective assessment of athletic recovery.
- Discuss possible consequences of limited recovery, such as overtraining, low energy availability and burnout, as well as practical dilemmas.
- Reflect upon and convey advantages and challenges with different recovery methods to athletes and coaches.

Contents

Sport nutrition and recovery: Clarification of concepts

The recovery steps

Nutrition, sleep, and quality rest

Recovery methods

Active recovery methods (e.g., low intensity activity)

Passive recovery methods (e.g., massage, compression clothing, hydrotherapy, medication, stretching)

Proactive recovery methods (e.g., relaxation)

Psychological recovery

Other factors of relevance for athletic recovery (such as gender differences, temperature and climate, travel, and lifestyle)

Subjective and objective assessment of athletic recovery

Practical dilemmas (e.g., recovery for all athletes on the same team, individual preferences, sponsors' requirements)

Possible consequences of limited recovery (such as overtraining, low energy availability and burnout); development, management, and prevention.

Teaching and learning methods

The course is taught as a combination of lectures, group work, case discussions, and individual tasks. A selection of oral and written tasks will be mandatory.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks must be completed and approved. An overview of all tasks will be presented in Canvas.

Examinations

3-hour written individual exam. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Technology in Sports

IDR-XXX

5 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- Demonstrate knowledge about key technologies and digital tools that are used in sports training and performance and understand their strengths and limitations.
- Summarize and interpret data from key training and performance measurement technologies.
- Implement and guide the use of basic sports-based monitoring technologies in diverse settings, including E-sports.

Contents

Basic concepts: using technology to quantify the physics, physiology, and psychology of sports

The evolution of technologies designed to enhance sports training and performance:

Home and field based physiological measurements

Embedded sensors for movement tracking and analysis

Real-time movement analytics and feedback

Training and performance data analytics

Quantifying the training process: training load, training stress, and training strain

Quantifying the recovery process: sleep, nutrition, mental fatigue, physical fatigue

Combining quantitative and qualitative methods to optimize performance development

Teaching and learning methods

Teaching methods will include lectures, laboratory demonstrations, and group project work using both physical and digital meetings. The expected total volume of student work for this course is 135 hours.

Examination requirements

Students will submit a portfolio of individual and group assignments during the course which will be evaluated on an approved/not approved basis. Satisfactory performance on these assignments will qualify the student for the final examination.

Examinations

The final assessment will be an individual 3 hour written examination requiring short answers, multiple choice responses and brief case evaluations. Graded assessment.

Course Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Programming 1 – Automation and Gaming

MM-1XX

5 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should:

- Be able to analyze and explain simple scripts and programs.
- Master key concepts and terms related to programming.
- Be able to automate / augment tasks by writing scripts or programs.
- Be able to search for errors and correct errors in one's own and others' source code.
- Be able to find and utilize third-party libraries and APIs.
- Know how to write good and clean code.
- Be able to account for an iterative work process.

Contents

With a focus on automation and game development, the course will cover a basic introduction to programming principles, problem solving and processes. The course will emphasize an iterative work process with the goal of writing clean and error-free code.

The student will gain knowledge of key principles such as variables, data types, control structures, functions, and other useful data structures.

Teaching and learning methods

The course is a combination of lectures, discussions, and lab assignments.

The expected scope of work for the average student is 135 hours.

Examinations

Portfolio examination. Information regarding the content of the portfolio will be given in Canvas. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty
Faculty of Engineering and Science

Remote Operated Vehicles

MM-2XX

5 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Prerequisites

The courses Programming 1 and Technology in Sports must be taken in parallel with or before this course.

Learning outcomes

On successful completion of the course, the students should be able to:

- Understand how ROVs are used in E-sports
- Understand basic functionality of ROVs and their use in other fields
- Use ROVs both as game elements and as tools for industry
- See the use of ROVs as elements also in physical education
- Have a basic knowledge of software related to the use of ROVs

Contents

Many people are familiar with regular computer games and competitions connected to them. What fewer people know is that the use of drones and other remotely operated vehicles are also part of the E-sports realm.

This course will introduce the students to remote operated vehicles and how they are used both in an E-sports context as well as tools for different industries. They will also learn how to use the ROVs as well as be introduced to software connected to them. There will also be an introduction to the use of drones as part of the training process and marketing for athletes.

Teaching and learning methods

The course is taught as a combination of lectures, flipped classroom, discussions, and assignments. The students will also be presented with many cases that will be discussed. They will also actively use drones.

Tasks will be presented to cover all modules of the course.

Expected workload for the average student is 135 hours.

Examinations

Portfolio with video assignment and written report. Overview and details will be published in Canvas at the start of the course. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

E-sports 3 - Practice

IDR-XXX

10 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Prerequisites

The courses Nutrition, Recovery and Athletic Performance, Programming 1 and Remote Operated Vehicles, must be taken in parallel with or before E-sports 3.

Learning outcomes

On successful completion of the course, the students should be able to:

- Share training advice in at least one game and activity.
- Log and document training, food and sleep.
- Understand the physical and nutritional requirements when competing in any sports but in E-sports in particular.
- Log activity using digital tools.
- Understand how you can develop and use a simple program for data analysis.
- Use simple drones.

Contents

As the other practice courses, this course will focus further on playing games and training to become better. However, it is also important to understand how everything is connected from the setup of your computer to the teams you play in and how you distribute what you do. This course will focus even more on the full picture of games connected with physical exercise.

This course is a continuation of E-sports 1 and 2 and gives increasingly more insight into the gaming world and how to optimize the experience both through the right hardware and focused training sessions. This course continues to put into practice elements that are discussed in other courses and elaborate on them. The students will be introduced to new technology for logging activities, the use of drones and other remote operated vehicles as well and basic programming.

Teaching and learning methods

The course will be divided into different modules. What they all have in common is a practical approach. Tasks will be practical in nature and the course will also include training sessions and tutoring sessions in different games.

Expected workload for the average student is 270 hours.

Examinations

Portfolio assessment with mandatory assignments. Information about the requirements for the portfolio will be given in Canvas. Graded pass/fail.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Sports Injuries and Ergonomics

IDR-XXX

5 credits – Spring – 1 semester – Grimstad

Included in study

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should:

- Understand the concepts of sports injuries and ergonomics
- Have knowledge of soft tissue- and skeletal injuries
- Understand the importance of ergonomics in sports
- Have knowledge of causal explanations for sports injuries
- Be able to demonstrate knowledge about sports-specific issues related to injury epidemiology
- Be able to discuss the prevention of sports injuries based on a holistic perspective
- Be able to reflect on and convey treatment of sports injuries
- Be able to reflect on and convey proposals for rehabilitation where the goal is to return to sports after sports injuries
- Be able to reflect on and convey proposals for handling long-term injuries in performance teams

Contents

Sports injuries and ergonomics; Clarification of concepts

Soft tissue- and skeletal injuries

Ergonomics in Sports – what is it and why is it important?

Causal explanations for sports injuries, based on given examples from selected sports

Sports-specific issues related to injury epidemiology

Holistic perspective on the prevention of sports injuries

Treatment of sports injuries, based on given examples from selected sports

Rehabilitation and return to sports after sports injuries, based on given examples from selected sports

Handling long-term injuries in performance teams

Teaching and learning methods

The course is taught as a combination of lectures, group work, practical teaching, case discussions, and individual tasks. A selection of oral and written tasks will be mandatory, in addition to the practical teaching.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks must be completed and approved. Participated in mandatory practical work. An overview of all tasks will be presented in Canvas.

Examinations

3-hour written individual exam. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Teams and Performance Culture

IDR-XXX

5 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should:

- Understand the human factor in creating a high-performance culture
- Understand the difference between leadership and management
- Understand the relationship between team composition, leadership, and individual and team performance
- Have knowledge about feedback effects on the regulation of individual and team performance
- Have knowledge about the relationship between individual characteristics, individual capability, and team performance
- Be able to discuss possible consequences of using reflective learning journals to improve individual and team performance, as well as practical dilemmas from a team performance perspective
- Be able to reflect upon and convey advantages and challenges with different personal values and performance in teams

Contents

Leadership and management: Clarification of concepts

A presentation of different theoretical perspectives

The bright and dark side of leadership and management

Person-environment fit, team performance, and performance culture

Individual characteristics and team composition

Team practices and motivating performance through empowerment

Psychological flexibility at the individual and team levels

Perceived stress, emotion regulation, psychological flexibility, and physical/mental health

What makes for effective feedback?

The power of feedback and feedback in reflective journals

Conditions that enable effective feedback

Reflection for learning in individual and team performance

Do we do Dewey? Challenges and possibilities

Leadership, personal values, and team culture

Teaching and learning methods

The course is taught as a combination of lectures, group work, case discussions, and individual tasks. A selection of oral and written tasks will be mandatory.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks must be completed and approved.

An overview of all tasks will be presented at the beginning of the semester.

Examinations

4-hour written individual exam. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Programming 2 – Useful Technology

MM-2XX

5 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Prerequisites

Completed and passed MM-1XX Programming 1 Automation and Gaming

Learning outcomes

On successful completion of the course, the students should:

- Be able to plan, document, implement and test larger programs.
- Be able to use version control.
- Have knowledge of paradigms such as procedure-based, object-oriented, and functional programming.
- Be able to develop object-oriented programs.
- Understand inheritance and dependency injection.
- Have knowledge of different design patterns in software development.
- Know details of agile working methods and tools.

Contents

An introduction is given to programming principles with a focus on structuring larger programs with the help of object-oriented thinking. The focus is on understanding the advantages and weaknesses associated with structural choices. Simple ways of thinking from functional programming are also taught.

Planning, estimation, and documentation of software projects are taught using agile project processes such as Scrum, Kanban etc. with associated tools.

The focus is on using programming as a tool together with existing programs to simplify and improve work tasks.

Teaching and learning methods

The course is a combination of lectures, discussions, and lab assignments.

The expected scope of work for the average student is 135 hours.

Examinations

Portfolio examination. Information regarding the content of the portfolio will be given in Canvas. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Entrepreneurship

MM -XXX

5 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should:

- Understand how E-sports is related to entrepreneurship.
- Understand basic business ideas related to E-sports.
- Be able to create a business idea from scratch and develop it into a concrete product.
- Be able to discuss ethics related to business.

Contents

E-sports is one of the fastest growing industries in the world. To be able to benefit from this, it is important that students learn how to work on innovative processes and design their own businesses. To get an idea, craft it into a product and develop it further is of high importance if one is to be able to create jobs in the future. E-sports provides an abundance of different paths to choose from.

This course will provide the student with the tools to grasp an idea and develop it. It will introduce basic skills related to building businesses, the laws and regulations connected to it and the possible errors that are most commonly made. Focus will also be put on marketing ideas and being able to promote the ideas and businesses you create.

Teaching and learning methods

The course is taught as a combination of lectures, flipped classroom, discussions, and mandatory tasks. The students will also be presented with many cases that will be discussed.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks must be completed and approved. An overview of all tasks will be presented in Canvas.

Examinations

Present a business project based on given criteria. The project is performed in groups. Information regarding the project will be given in Canvas. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

E-sports 4 - Practice

MM-2XX

10 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Prerequisites

The courses Sports Injuries and Ergonomics, Teams and Performance Culture, Programming 1 and 2 and Entrepreneurship, must be taken in parallel with or before E-sports 4.

Learning outcomes

On successful completion of the course, the students should:

- Have an understanding for common injuries in E-sports and how to prevent them.
- Be able to create teams and understand the processes involved in motivating a team.
- Be able to use programming when solving tasks related to E-sports.
- Understand the business elements involved in creating a company.
- Be able to play at least one game at a higher level.

Contents

As with the other practice courses, this course also focusses on playing games and training to become better. However, it is also important to understand how everything is connected and especially how we work when establishing teams and trying to perform on a higher level. This course will focus even more on the full picture of games connected with physical exercise and the danger of injuries.

This course is a continuation of E-sports 1, 2 and 3 and gives increasingly more insight into the gaming world and how to optimize the experience. Now we focus on the importance of team relations and performance as well as the need to avoid injury and how to repair existing injuries. This course also adds to the programming skills acquired in the previous semester.

Teaching and learning methods

The course will be divided into different modules. What they all have in common is a practical approach. Tasks will be practical in nature and the course will also include training sessions and tutoring sessions in different games.

Expected workload for the average student is 270 hours.

Examinations

Portfolio assessment with mandatory assignments. Information about the requirements for the portfolio will be given in Canvas. Graded pass/fail.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Scientific Methods and Statistics

IDRXXX

10 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the student should

- have knowledge of scientific thinking and working methods
- be familiar with central science-theoretical traditions
- be familiar with relevant research designs within qualitative and quantitative research, including action research (interventions) and evaluation of actions
- have knowledge about relevant methods in qualitative and quantitative research
- be familiar with different types of validity in qualitative and quantitative research
- have knowledge about strengths and limitations in different research designs
- have basic knowledge of statistical concepts and analyses
- be able to perform descriptive statistical analyses, as well as present and interpret descriptive statistics
- have knowledge of research ethical issues within the respective areas
- be able to evaluate relevant articles with regard to research design, applied methods and statistics

Contents

The emphasis is on theoretical and practical knowledge and skills related to scientific thinking and working methods, as well as scientific methods and statistics. The main points of the course are:

Science and research-based knowledge

Different science-theoretical traditions

Central research design

Quantitative and qualitative methods in research

Validity in research

Strengths and limitations in different research designs

Descriptive and comparative statistics

Presentation and interpretation of descriptive and comparative statistics

Analysis programs for data processing and statistical analysis

Research ethics

Assessment of scientific work

Teaching and learning methods

The work methods will mainly be web-based through digital modules, but also seminar groups (compulsory) and data labs (compulsory). A detailed overview of mandatory teaching and seminar groups is found in the Canvas semester plan. The course has a workload equivalent to 270 hours.

Examination requirements

Approved course work requirements and participation in seminar groups and data lab work. The work requirements consist of a digital gate test in statistics and assessment of research design and methods in a course-specific scientific work. See more detailed description in the semester plan on Canvas.

Examinations

A two-day individual written home exam. The home exam will deal with an assessment of research design, applied methods and statistics in a course-specific scientific work. See more detailed description in the semester plan on Canvas. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Branding

MM -XXX

5 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- Develop a concept into a brand name
- Build himself/herself as a brand and promote himself/herself
- Understand the importance of branding in business in general and in E-sports in particular

Contents

People of all ages spend much time gaming on different platforms. Many people also watch other people play, train or just share their experiences. This happens to the point where these people become their own household name, a brand. Building a name requires a lot of work, but when done will provide more avenues for income and promotion within the E-sports community.

This course will show the students how to create their own brand and how to promote it. This includes defining a mission statement for their brand as well as identifying their potential audience in order to define value from a consumer/customer perspective. The students will be introduced to the development phase, design, marketing and promotion aimed at presenting themselves to the world as a brand.

Teaching and learning methods

The course is taught as a combination of lectures, flipped classroom, discussions, and mandatory tasks. The students will also be presented with many cases that will be discussed.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks have to be completed and approved. An overview of all tasks will be presented in Canvas.

Examinations

Individual written assignment based on a case study. Information about the requirements for the assignment will be given in Canvas. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Digital Security

MM -XXX

5 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should:

- Understand how digital security is connected to E-sports.
- Be able to identify security issues when using digital platforms.
- Understand, and be able to explain, proper online behavior.
- Be able to identify and implement basic security measures for your online activities.
- Understand privacy regulations and be able to explain them to others.

Contents

When working on digital platforms, we expose ourselves to many known and unknown factors. Most of them have no effect on us, but it becomes increasingly more important to understand the challenges connected to digital security. Online privacy is one key element that has become more important over the last few years.

This course will provide insight into some of the challenges regarding gaming in general and E-sports in particular. What challenges are we facing? Security is of great concern, and to be able to identify problems and dealing with them will be important. The laws and regulations related to for example privacy issues will also be addressed in the course.

Teaching and learning methods

The course is taught as a combination of lectures, flipped classroom, discussions, and mandatory tasks.

Expected workload for the average student is 135 hours.

Examination requirements

All mandatory tasks must be completed and approved. An overview of all tasks will be presented in Canvas.

Examinations

Individual written assignment based on a case study. Overview and details will be published in Canvas at the start of the course. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

E-sports 5 - Practice

IDR-XXX

10 credits – Autumn – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Prerequisites

The courses Research Methods and Statistics, Branding and Digital Security, must be taken in parallel with or before E-sports 5.

Learning outcomes

On successful completion of the course, the students should be able to:

- Gameplay one game at a higher level and logging no less than 100 hours of play.
- Understand basic research methods and use them for collecting data on a game.
- Create their own brand and promote it.
- Understand the laws and regulations connected to online gaming and show examples of how they are implemented.

Contents

This is the last of the practice courses. As with the previous courses, the main focus is on creating practical approaches to the courses in the semester. However, this course also focuses on a more intense gameplay.

This course has a stronger focus on the different processes involved when playing and trying to set them in a more academic perspective through the use of research methodology. In addition, the students will work on creating their own brand and understand the need for digital security.

Teaching and learning methods

The course will be divided into different modules. What they all have in common is a practical approach. Tasks will be practical in nature and the course will also include training sessions and tutoring sessions in different games.

Expected workload for the average student is 270 hours.

Examinations

Portfolio assessment with mandatory assignments. Information about the requirements for the portfolio will be given in Canvas. Graded pass/fail.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Health and Sport Sciences

Preliminary Project

MM -XXX

5 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should:

- Be able to create a project which will be the basis for a bachelor thesis within one of the specialization areas in the bachelor's program
- Understand the concept of ethics and basic rules for academic work
- Be able to structure a project

Contents

Based on the knowledge acquired through 5 semesters, this course is the precursor to the final bachelor project. This course is all about narrowing down knowledge to one focus point within one of the four specializations:

- E-sports athlete or manager
- E-sports related business and activity
- Technology and innovation
- Health and Education

The content of the course is defined together with the supervisor within the field of specialization chosen by the student. The student will create a project report which will be the foundation for the bachelor thesis. The report has to be approved before the bachelor thesis can be started.

The project should provide insight into what the student wants to focus on in the bachelor thesis. It also has to explain the methodology and theoretical background for the coming bachelor thesis. The final report should also look into ethical issues connected to the bachelor's thesis.

Teaching and learning methods

The course is primarily a student driven course where the student will work on ideas for the coming bachelor thesis. Every student will have tutoring sessions with lecturers relevant for the content chosen by the student.

Expected workload for the average student is 135 hours.

Examinations

Written report, in groups or individually. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Economy and Innovation

MM-XXX

5 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Language of teaching

English

Learning outcome

After completing the course, the student should:

- Be able to perform a strategic analysis (SWOT-analysis)
- Have knowledge of innovation and innovation processes
- Have knowledge of basic budgeting and accounting
- Have knowledge of financial management in large and small projects

Contents

Entrepreneurship and innovation, risk analysis, technology and economics, rhetoric and basic budgeting and accounting. Financial management of large and small projects.

Teaching and learning methods and workload

Lectures and practices that are linked to the themes mentioned in course content. Group project, where the students are to evaluate a business case, perform a SWOT-analysis and present it orally. The project is based on a fictional business start-up. The students are also to evaluate the societal and economic consequences and connections of the start-up.

Expected workload pr student is about 135 hours (27 hours pr ECTS).

Examination

Project, in group. Common graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Bachelor's Thesis

MM -XXX

20 credits – Spring – 1 semester – Grimstad

Included in study.

Academic E-sports, Bachelor's Program

Prerequisites

- 130 credits in the student's education plan must be passed at the beginning of the semester for the bachelor's thesis.
- Preliminary project must be taken same semester or before the bachelor's thesis and be passed before starting the thesis.
- The topic and research question for the thesis must be approved by the course coordinator.

Language of teaching

English

Learning outcomes

On successful completion of the course, the students should be able to:

- Create a project based on the preliminary project in one of the specialization areas of the bachelor's program
- Write an academic report using the base criteria for references and academic structure
- Show a working knowledge of basic research methodologies
- Discuss future challenges related to E-sports
- Present the results of an academic work orally

Contents

A bachelor thesis is a comprehensive piece of work which includes both theory, methodology and a working knowledge of the field.

The topic for the bachelor's thesis is selected within one of the four specialization areas:

- E-sports athlete or manager
- E-sports related business and activity
- Technology and innovation
- Health and Education

The student will show the ability to structure an academic report based on the knowledge acquired through the study program. The project will help develop the student's abilities working with scientific methods. The course will also provide practical experience with project work.

Teaching and learning methods

Every student is entitled to a tutor for the bachelor project and the tutor will arrange sessions for guidance in both structuring the report as well as discussing possible angles for it.

Expected workload for the average student is 540 hours.

Examination requirements

- Participating in a minimum of 5 hours compulsory mentoring.
- Research question must be handed in according to schedule (course coordinator provides schedule).
- Progress schedule must be handed in according to schedule (course coordinator provides schedule).

Examinations

Written report, in groups or individually. Adjustable oral presentation. The assessment given on the thesis may be individually adjusted maximum one grade up/down after the oral presentation. Graded assessment.

Evaluation

The study program manager, in consultation with the student representative, decides the method of evaluation and whether the courses will have a midterm- or end of term evaluation, see also the Quality System, section 4.1. Information about evaluation method for the course will be posted on Canvas.

Responsible faculty

Faculty of Engineering and Science

Literature

As this is a completely new study program in a field which is still being explored and developed, it is difficult to apply a full list of the literature expected to be used in the study. However, there are several works which will be used in the various courses. The list will expand as more available literature is published.

Title:	Author (s)	ISBN
Game History and Game Design		
Play Matters	Miguel Sicart	9780262534512
A Brief History of Video Games	Richard Stanton	9781472143815
The art of game design	Jesse Schell	9781138632059
Rules of Play	Katie Zalen/Eric Zimmerman	9780262240451
Getting Gamers. The psychology of video games and their impact on the people who play them	Jamie Madigan	978-1-4422-3999-9
Spillpedagogikk	Jørund H. Skaug Aleksander Husøy Tobias Staaby	9788245032048
Psychology and ethics		
Time Spent Gaming and Social Competence in Children: Reciprocal Effects Across Childhood	Beate Hygen	Child Development Volume91, Issue3 May/June 2020 https://doi.org/10.1111/cdev.13243
Introduction to sports and training, nutrition and recovery,		

Effects of training and competition on the sleep of elite athletes: a systematic review and meta-analysis	Spencer Stuart Haines Roberts, Wei-Peng Teo, Stuart Anthony Warmington	Br J Sports Med, 53 (8), 513-522, 2019
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