### National Qualification Framework for Iceland

#### Bachelor’s degree Cycle 1.2 180 – 240 ECTS

A Bachelor’s degree provides access to further studies at cycles 2.1 and 2.2. Higher education institutions or individual faculties may require a minimum grade for admission to studies at cycles 2.1 and 2.2.

### The National Qualification Framework states that degree holders:

1. **Knowledge**
   - have acquired general understanding and insight into main theories and concepts
   - are aware of the latest knowledge in the relevant field
   - can apply the basic elements of information technology

   **Examples:**
   - Can use reliable data resources in the relevant scientific field
   - Have acquired an open and critical mindset by being able to retrieve it, recognize when further data is needed and have the ability to retrieve and evaluate critically the methods applied
   - Can use the relevant equipment, technology and software
   - Can use the relevant information, communication and computing technology
   - Can work in an independent and organised manner, set goals for their work, devise a work schedule and follow it
   - Can participate actively and lead work groups

2. **Skills**
   - Can work with others, including experts from different domains throughout their careers
   - Can develop solutions that are suitable and effective in a range of situations
   - Can participate in and lead work groups
   - Can explain their solution to others, including why and how a solution solves the problem and what assumptions were made

   **Examples:**
   - Can work effectively both individually and as members of teams
   - Can apply critical analytic methods
   - Can use the relevant elements of information, communication and computing technology
   - Can participate actively and lead work groups
   - Can work in an independent and organised manner, set goals for their work, devise a work schedule and follow it

3. **Competences**
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing

   **Examples:**
   - Understand the range of opportunities and limitations of computing
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### BSc in Software Engineering at Reykjavik University

The BSc in Software Engineering at the RU is organised as a three-year programme (six semesters). To finish the programme, students need to complete 180 ECTS. On completing the Bachelor of Science in Software Engineering, students have achieved the learning outcomes shown below.

#### Learning Outcomes for the BSc in Software Engineering

1. **A number of recurring themes, and a set of general principles that have broad application to the field of computer science**
   - The social, legal, ethical, and cultural issues inherent in the discipline of computing
   - Software design paradigms, including information, communication and computing paradigms
   - Software engineering principles, including a thorough understanding of software analysis and design, evaluation and testing and software quality and correctness
   - Software engineering processes, including management of complex software development projects

2. **Multiple programming languages, paradigms, and technologies**
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3. **Knowledge**
   - Know how to apply the knowledge they have gained to solve real problems
   - Realize that there are multiple solutions to a given problem and these solutions will have a real impact on people’s lives
   - Communicate their solutions to others, including why and how a solution solves the problem and what assumptions were made
   - Successfully apply the knowledge they have gained through project experience
   - Comprehend an appreciation for the structure of computer systems and the processes involved in their construction and analysis
   - Understand individual and collective responsibility and individual limitations as well as the limitations of technical tools
   - Understand the range of opportunities and limitations of computing

4. **Skills**
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing

   **Examples:**
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing

5. **Comprehend**
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing

   **Examples:**
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing
   - Understand the range of opportunities and limitations of computing