

Food and nutrition

The subject of food and nutrition covers food and raw materials, and how they are affected by different factors. It also covers how to compose menus and recipes for different needs, and the relationship between food, drink and health.

Aim of the subject

Teaching in the subject of food and nutrition should aim at helping students develop knowledge of different foods and raw materials, as well as their nutritional content, chemical structure and functions in the body. Teaching should help students develop an understanding of how nutritional content and quality are affected by the way raw materials have been cultivated or bred, processed, cooked and stored.

Based on people's different needs, teaching should give students the opportunity to develop skills in composing and calculating the nutritional value of menus, and an understanding of how different factors affect nutritional content and needs. Teaching should also help students develop knowledge about the importance of food and drink for health, at both individual and society levels.

Teaching should contribute to students developing the ability to problematise issues concerning the nutrition situation in the world, and different issues in the area related to ethics and sustainable development. It should also help students develop the ability to understand laws and regulations concerning food and raw materials.

Teaching should also give students the opportunity to apply and develop their knowledge of different foods, their appearance, taste and how they can be used.

Teaching in the subject of food and nutrition should give students the opportunities to develop the following:

- 1) Knowledge of various raw materials and food and their characteristics.
- 2) Knowledge of nutritional substances.
- 3) Knowledge of how raw materials and the quality of food and nutritional content are affected by processing and storage.
- 4) Skills in making nutritional calculations.
- 5) The ability to compose menus and recipes for normal and alternative foods.
- 6) Knowledge of nutritional recommendations based on health and lifestyle, and also about the food situation in Sweden and other parts of the world.
- 7) The ability to determine different ethical and environmental views.
- 8) Knowledge of laws and other regulations in the area.

Courses in the subject

- Food and nutrition 1, 100 credits.
- Food and nutrition 2, 100 credits, which builds on the course, food and nutrition 1.

Food and nutrition 1

The course, food and nutrition 1, covers points 1–8 under the heading Aim of the subject. The course covers basic knowledge in the subject.

Core content

Teaching in the course should cover the following core content:

- Identifying and assessing the quality of raw materials and food.
- Nutrients, their structure and functions in the body and their importance for people's health.
- Different steps in handling raw materials and food: cultivation, animal management, transport, storage and processing.
- How different cooking methods affect the quality and nutritional content of raw materials and food.
- Chemical processes occurring in raw materials and food during processing and storage.
- Nutritional calculations. Health and lifestyle. How individuals' energy needs and nutritional requirements are affected by various factors, e.g. activity.
- Allergies and special diets. Nutritional status with dietary recommendations e.g. for the elderly, children and the sick.
- The nutrition situation in Sweden and the world, e.g. malnutrition, obesity and resource distribution.
- Ethical and environmental issues concerning the handling of raw materials, as well as food and resource management.
- Laws and other regulations in the area.

Knowledge requirements

Grade E

Students identify **with certainty** and describe **in basic terms** different raw materials and food, and also give an account **in basic terms** of their characteristics. In addition, students describe **in basic terms** different nutrients, and also how raw materials, food quality and nutritional content are affected by processing and storage.

Students calculate nutritional values **based on specific material** and compose based on this, and **in consultation** with the supervisor menus and recipes for normal food dishes. Where necessary,

menus and recipes are adapted **with some certainty** to individual needs, and also based on allergies and different medical conditions.

Students give an account **in basic terms** of different kinds of nutritional recommendations and their linkage to health and lifestyle. In addition, students give an account **in basic terms** of the nutrition situation in Sweden and in other parts of the world.

Students describe **in basic terms** some ethical and environmental dilemmas with regard to animal husbandry, handling of food and nutritional intake. Students discuss these **in basic terms** and give the reasons for their views in **simple** assessments. In their discussions, students also refer to relevant laws and other regulations.

In consultation with the supervisor, students assess **with some certainty** their own ability and the requirements of the situation.

Grade D

Grade D means that the knowledge requirements for grade E and most of C are satisfied.

Grade C

Students identify **with some certainty** and describe **in detail** different raw materials and food, and also give an account **in detail** of their characteristics. In addition, students describe **in detail** different nutrients, and also how raw materials and food quality and nutritional content are affected by processing and storage.

Students calculate nutritional values, and based on these, and **after consultation** with the supervisor compose menus and recipes for normal food dishes. Where necessary, menus and recipes are adapted **with some certainty** to individual needs, and also based on allergies and different medical conditions.

Students give an account **in detail** of different kinds of nutritional recommendations and their linkage to health and lifestyle. In addition, students give an account **in detail** of the nutrition situation in Sweden and in other parts of the world.

Students describe **in detail** some ethical and environmental dilemmas with regard to animal husbandry, handling of food and nutritional intake. Students discuss these **in detail** and give the reasons for their views in **simple** assessments. In their discussions, students also refer to relevant laws and other regulations.

In consultation with the supervisor, students assess **with some certainty** their own ability and the requirements of the situation.

Grade B

Grade B means that the knowledge requirements for grade C and most of A are satisfied.

Grade A

Students identify **with certainty** and describe **in detail and in a balanced way** different raw materials and food, and also give an account **in detail and in a balanced way** of their

characteristics. In addition, students describe **in detail and in a balanced way** different nutrients, and also how raw materials, food quality, and nutritional content are affected by processing and storage.

Students calculate nutritional values, and based on these, and **after consultation** with the supervisor compose menus and recipes for normal food dishes. Where necessary, menus and recipes are adapted **with certainty** to individual needs, and allergies and different medical conditions.

Students give an account **in detail and in a balanced way** of different kinds of nutritional recommendations and their linkage to health and lifestyle. In addition, students give an account **in detail and in a balanced way** of the nutrition situation in Sweden and in other parts of the world.

Students describe **in detail and in a balanced way** some ethical and environmental dilemmas with regard to animal husbandry, handling of food and nutritional intake. Students discuss these **in detail and in a balanced way** and give the reasons for their views in **balanced** assessments. In their discussions, students also refer to relevant laws and other regulations.

In consultation with the supervisor, students assess **with certainty** their own ability and the requirements of the situation.

Food and nutrition 2

The course, food and nutrition 2, covers points 1–8 under the heading Aim of the subject, with special emphasis on points 2, 6 and 8. The course covers advanced knowledge in the subject.

Core content

Teaching in the course should cover the following core content:

- Quality assessments and comparisons of raw materials and food.
- Raw materials, food and the chemical structure of nutritional elements e.g. cell structures, fibre and muscle structures, and also water and fat solubility.
- Chemical and physical processes in raw materials and finished products e.g. fermentation, drying and heating.
- Energy needs and industrial needs in relation to lifestyle, exercise, food habits and special needs.
- Ethical issues relating to quality and origins of raw materials, e.g. fair trade conditions, genetic modification and transport.
- Food quality in relation to sustainable development and the economy.
- Laws and other regulations in the area e.g. food additives, labelling and packaging regulations.

Knowledge requirements

Grade E

Students describe **in basic terms** and assess **with some certainty** the quality of raw materials and food, and also give an account **in basic terms** of their characteristics. Students also describe **in basic terms** raw materials, food and the chemical structure of nutritional elements. In addition, students describe **in basic terms** how raw materials and quality of food and nutritional content are affected by processing and storage, and the chemical and physical processes involved.

Students calculate nutritional values **based on specific material** and compose based on this, and **in consultation** with the supervisor menus and recipes for normal food dishes. Where necessary, menus and recipes are adapted **with some certainty** to special needs.

Students give an account **in basic terms** of different kinds of nutritional recommendations and their linkage to health and lifestyle. In addition, students give an account **in basic terms** of the nutrition situation in Sweden and in other parts of the world.

Students describe **in basic terms** some ethical and environmental dilemmas with regard to the quality and origins of raw materials, and also the quality of food in relation to sustainable

development. Students discuss these **in basic terms** and give the reasons for their views in **simple** assessments. In their discussions, students also refer to relevant laws and other regulations. In consultation with the supervisor, students assess **with some certainty** their own ability and the requirements of the situation.

Grade D

Grade D means that the knowledge requirements for grade E and most of C are satisfied.

Grade C

Students describe **in detail** and assess **with some certainty** the quality of raw materials and food, and also give an account **in detail** of their characteristics. Students also describe **in detail** raw materials, food and the chemical structure of nutritional elements. In addition, students describe **in detail** how raw materials and the quality of food and nutritional content are affected by processing and storage, and also the chemical and physical processes involved.

Students calculate nutritional values, and based on these, and **after consultation** with the supervisor compose menus and recipes for normal food dishes. Where necessary, menus and recipes are adapted **with some certainty** to special needs.

Students give an account **in detail** of different kinds of nutritional recommendations and their linkage to health and lifestyle. In addition, students give an account **in detail** of the nutrition situation in Sweden and in other parts of the world.

Students describe **in detail** some ethical and environmental dilemmas with regard to the quality and origins of raw materials, and also the quality of food in relation to sustainable development. Students discuss these **in detail** and give the reasons for their views in **simple** assessments. In their discussions, students also refer to relevant laws and other regulations. In consultation with the supervisor, students assess **with some certainty** their own ability and the requirements of the situation.

Grade B

Grade B means that the knowledge requirements for grade C and most of A are satisfied.

Grade A

Students describe **in detail and in a balanced way** and assess **with certainty** the quality of raw materials and food, and also give an account **in detail and in a balanced way** of their characteristics. Students also describe **in detail and in a balanced way** raw materials, food and the chemical structure of nutritional elements. In addition, students describe **in detail and in a balanced way** how raw materials and the quality of food and nutritional content are affected by processing and storage, and the chemical and physical processes involved.

Students calculate nutritional values, and based on these, and **after consultation** with the supervisor compose menus and recipes for normal food dishes. Where necessary, menus and recipes are adapted **with certainty** to individual needs.

Students give an account **in detail and in a balanced way** of different kinds of nutritional recommendations and their linkage to health and lifestyle. In addition, students give an account **in detail and in a balanced way** of the nutrition situation in Sweden and in other parts of the world.

Students describe **in detail and in a balanced way** some ethical and environmental dilemmas with regard to the quality and origins of raw materials, and also the quality of food in relation to sustainable development. Students discuss these **in detail and in a balanced way** and give the reasons for their views in **balanced** assessments. In their discussions, students also refer to relevant laws and other regulations. In consultation with the supervisor, students assess **with certainty** their own ability and the requirements of the situation.