Course Unit Descriptor

**Study Programme: Food engineering**

**Course Unit Title: Technology of starch processing**

**Course Unit Code: UHO 403**

**Name of Lecturer(s):dr Ljubica Dokic full professor, dr Ivana Nikolic, assistant professor**

**Type and Level of Studies:bachelor academic degree**

**Course Status (compulsory/elective): compulsory**

**Semester (winter/summer):summer**

**Language of instruction: english**

**Mode of course unit delivery (face-to-face/distance learning): face to face**

**Number of ECTS Allocated: 6**

**Prerequisites:none**

**Course Aims:**

**Getting knowledge on different chemical transformation of starch and production of sweeteners**

**Learning Outcomes:**

**Gaining knowledge about starch transformation into sweeteners and their application in food formulatuons**

**Syllabus:**

*Theory*

Enzymes used for starch hydrolysis. Industrial processes of acid and enzyme hydrolysis of starch. Unit operation for production of corn syrups, glucose, high fructose corn syrups, fructose and sorbitol. Physical and chemical properties of sweeteners and their application in food and nonfood products.

*Practice*

Different analytical methods for determination of dextrose equivalent.

**Required Reading:**

**Starch: Chemistry and Technology, Ed. BeMiller J. Whistler R., Elsevier, 2009**

| **Weekly Contact Hours: 5** | **Lectures:3** | **Practical work: 3** |
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**Teaching Methods:**

**Lecture and laboratory work**

**Knowledge Assessment (maximum of 100 points):**

| **Pre-exam obligations** | points | **Final exam** | points |
|---|---|---|---|
| Active class participation | | written exam | |
| Practical work | 10 | oral exam | 30 |
| Preliminary exam(s) | 60 | ……. | |
| Seminar(s) | | | |

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.