<table>
<thead>
<tr>
<th><strong>Course Title</strong></th>
<th>Advanced Food Biochemistry</th>
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<tbody>
<tr>
<td><strong>Instructor</strong></td>
<td>Masakazu SHIRAIWA, Shigeru CHONAN</td>
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<td><strong>Code</strong></td>
<td>MA052100 Semester 2nd (Oct-)</td>
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<td><strong>Credit(s)</strong></td>
<td>1 Day／Period Thu, 3</td>
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<td><strong>Description Code</strong></td>
<td>A-AGC-612</td>
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**Outline**

Food contains many functional components. In this lecture, we lecture on the structure, function, metabolism and its application of saponin, vitamin and coenzyme, which are important components involved in nutritional function, sensory function and bioregulatory function of food.

**Keywords**

Soybean, Functional component, saponin, Vitamin, Coenzyme, Metabolism

**Goals**

Through this lecture, you will understand:
1. Characteristic as the food material of soybean
2. Saponin as the food functional component
3. The type, structures, and functions of vitamins
4. The relationship of B-group vitamins and coenzyme

Elements of Diploma Policy:
1. Academic and research skills in the specialized field

**Course Plan**

1. Characteristics of soybean as a food material
2. Functional components containing in soybean
3. Saponin as food functional component
4. Development of highly functional soybean with controlled composition and content of saponin
5. Type of vitamins and their functions in metabolism
6. Vitamin biosynthetic pathways
7. Coenzyme biosynthetic pathways
8. Vitamin B5 and CoA biosynthetic pathways

**Advice for Preview and Review**

Since lecture materials are distributed beforehand, you should come to the lecture after seeing the materials.

**Prerequisite**

Students who take this class need to have basic knowledge of biochemistry and food chemistry.

**Grading Criteria**

Based on evaluation of two reports on the 1st through 4th classes (50%) and the 5th through 8th classes (50%).

**Texts/References**

Textbooks are not used. This class is done using lecture materials and PowerPoint.