



## **FOR 632 Technology and Mechanization of Wood Harvesting**

Obligatory subject /in 6-7-th semester for Bulgarian students/

ECTS credits – 8 Ability to teach a foreign language – **English**

Syllabus in brief

### ***I. Lectures:***

**1. Wood cutting theory** – Characteristic of different types of wood cutting that are used in wood harvesting operations.

**2. Machines for cutting and primary processing of wood – characteristic and possible use** – motor chain saws, felling machines – two-grip and one-grip harvesters, processors, splitting and chipping machines.

**3. Machines for off-road transportation of wood – characteristic and possible use in different terrain conditions** – tractors and cable yarders.

**4. Machines for loading and unloading of wood materials** – types and characteristic.

**5. Logging systems** – description, characteristic, applicability in different conditions.

### **6. Operational technologies:**

Felling the trees by motor chain saws and felling machines;

Delimiting and bucking by motor chain saws, harvesters and processors;

Off-road transportation of wood by tractors and cable yarders – schemes;

Loading/unloading of wood materials by hydraulic cranes and front-end loaders;

**7. Assessment of logging systems** – economical and ecological criteria.

### ***II. Exercises:***

**Planning of logging system according given conditions.**

### ***III. Practical training:***

**Visiting of educational forestry enterprise Yundola - watching and discussing of now used logging system.**

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