



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

HUMAN NUTRITION AND ENVIRONMENT NUTRIZIONE UMANA E SOSTENIBILITÀ AMBIENTALE

Prof. Enzo Spisni

Interuniversity Degree in BIOLOGY OF HUMAN AND
ENVIRONMENTAL HEALTH

Corso di laurea in SCIENZE BIOLOGICHE

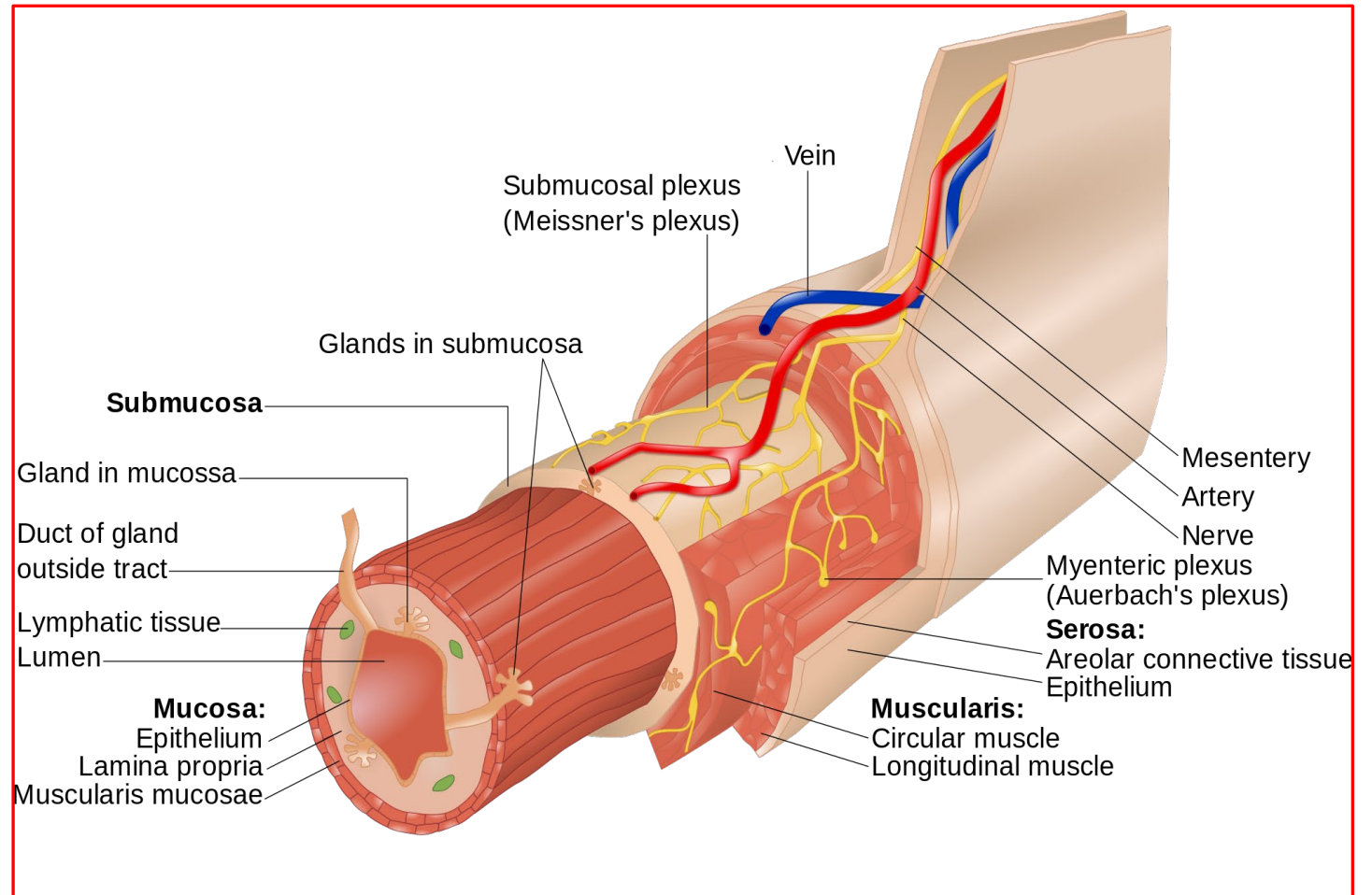
Teaching Courses on
Nutrition and Environmental Health

The co-evolution of diets and the gastrointestinal system

Focus on

motility

secretion



Physiology of the digestive system: travelling from mouth to anus.

“Those who don't know food can't understand human diseases.”

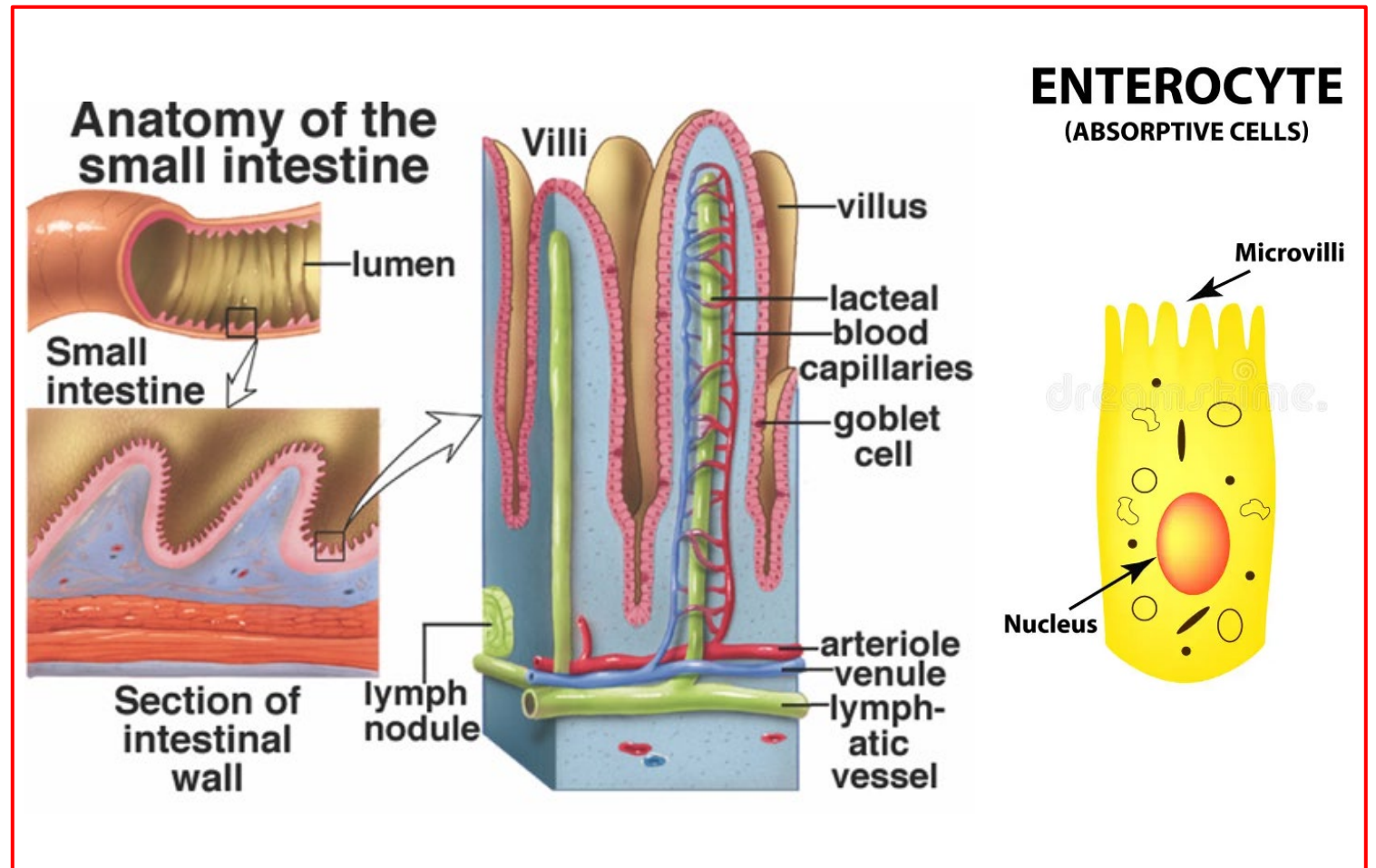
Hippocrates

Focus on

digestion

absorption

Nutrient
sensing



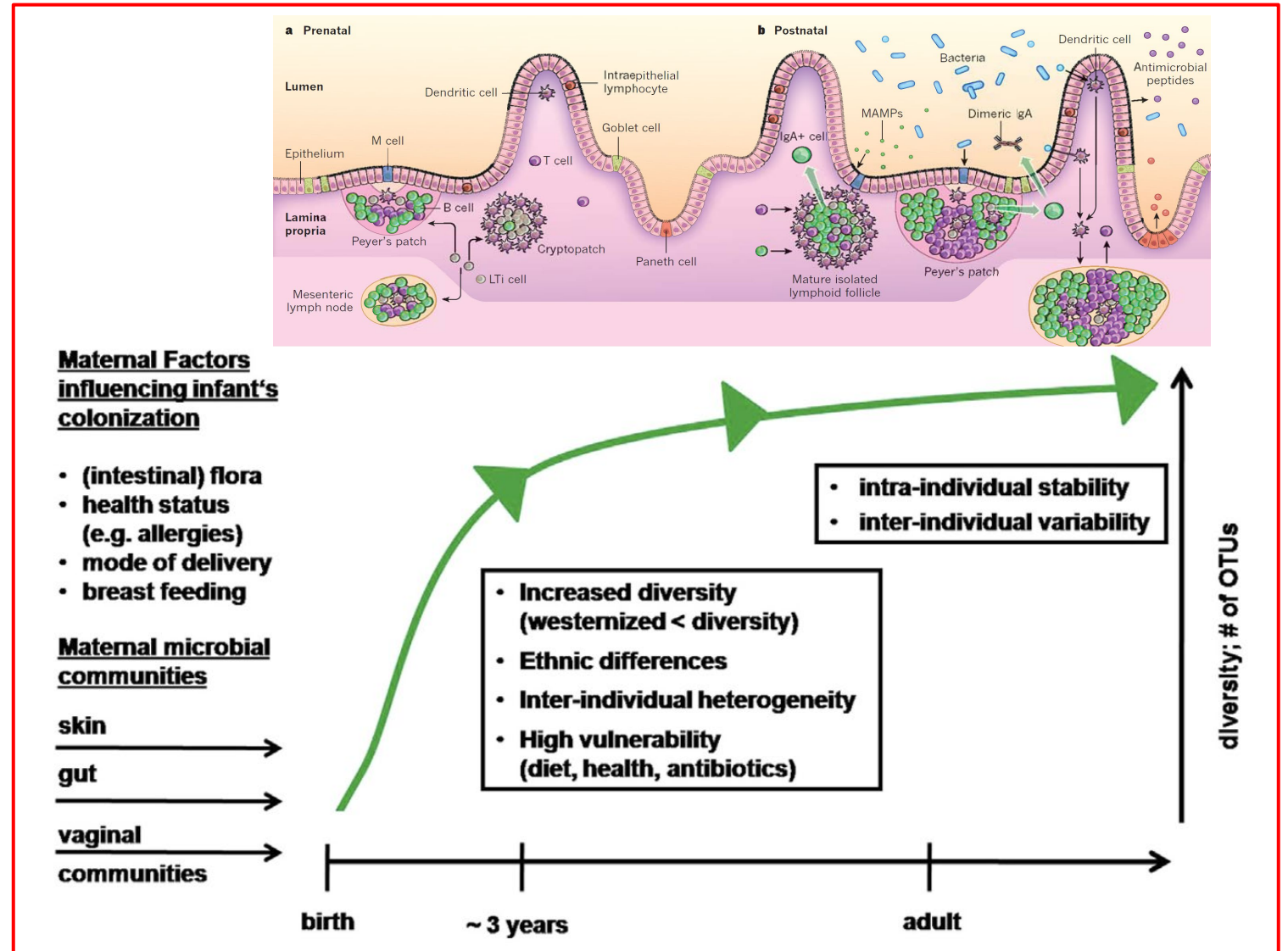
Physiology of the digestive system: how nutrients and micronutrients are digested and absorbed

Gut microbiota as vulnerable environmental inheritance

Focus on

Immune
system

Gut-brain
axis



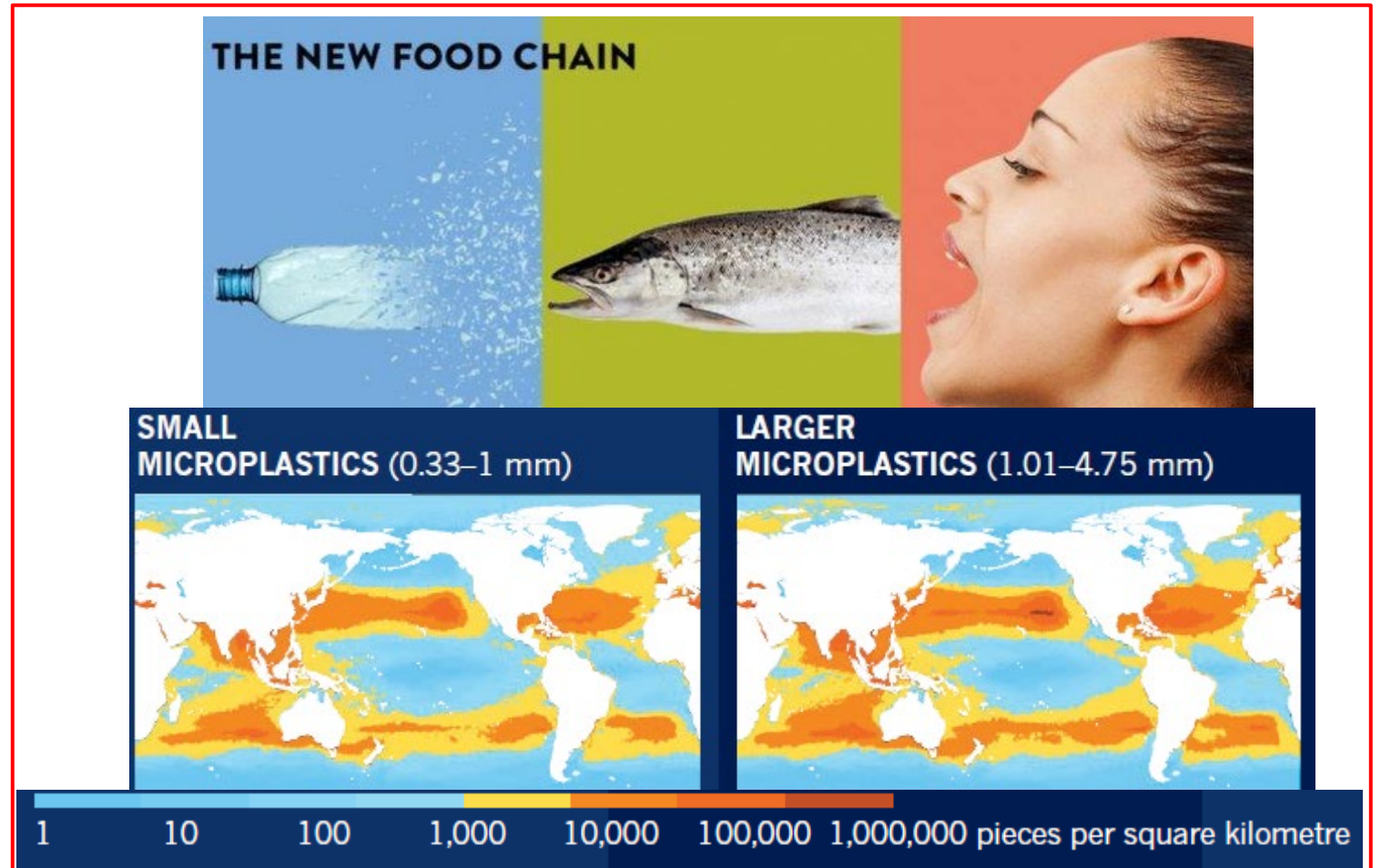
Gut microbiome physiology: from health to disease

Plastics in the environment and in the food chain: a global risk

Focus on

Micro- and
nanoplastics

Plastic
leakage



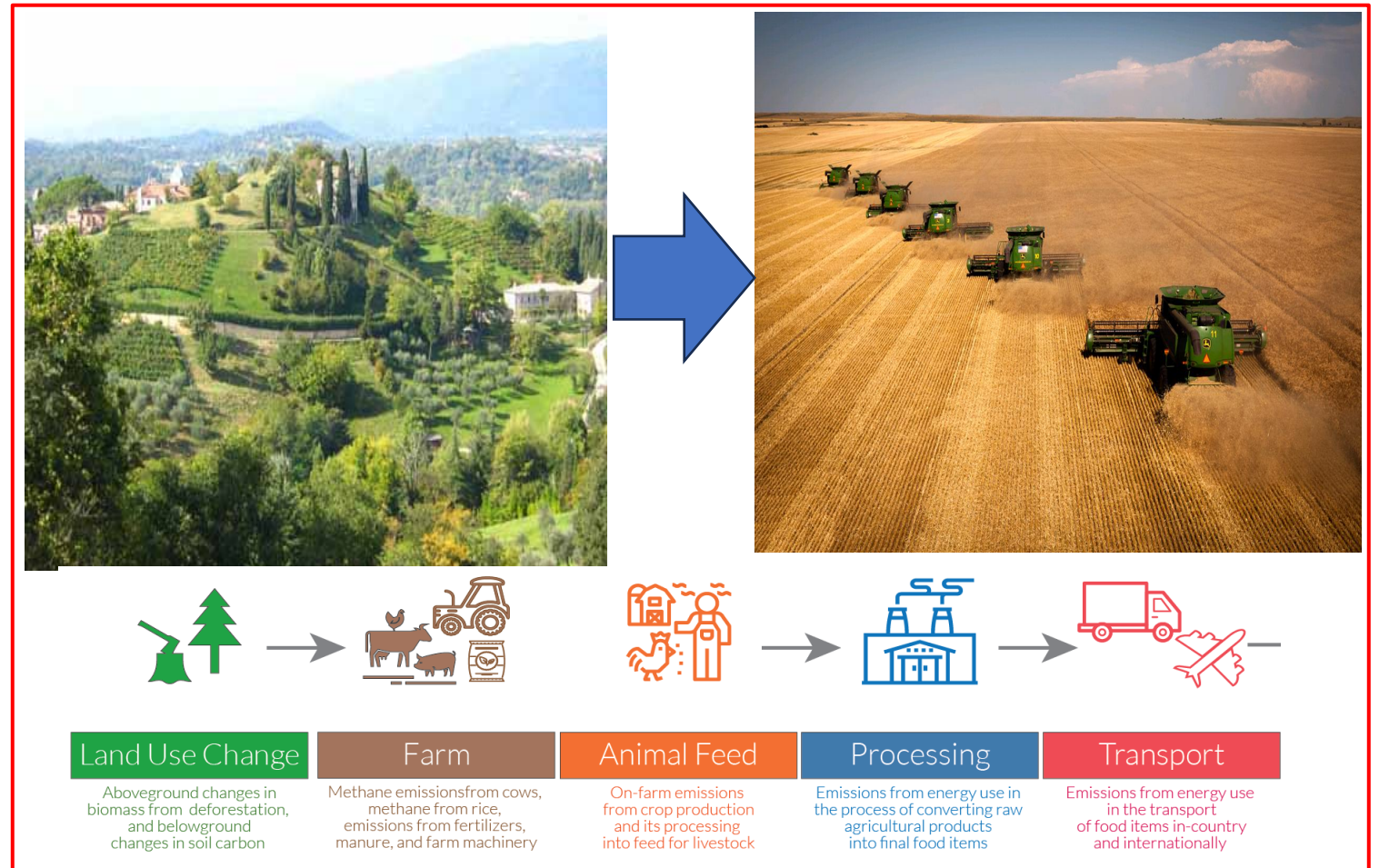
Microplastics as emerging food contaminants: a challenge for food safety

Conventional agriculture, environment and climate change

Focus on

Energetic
balance

Greenhouse
gases



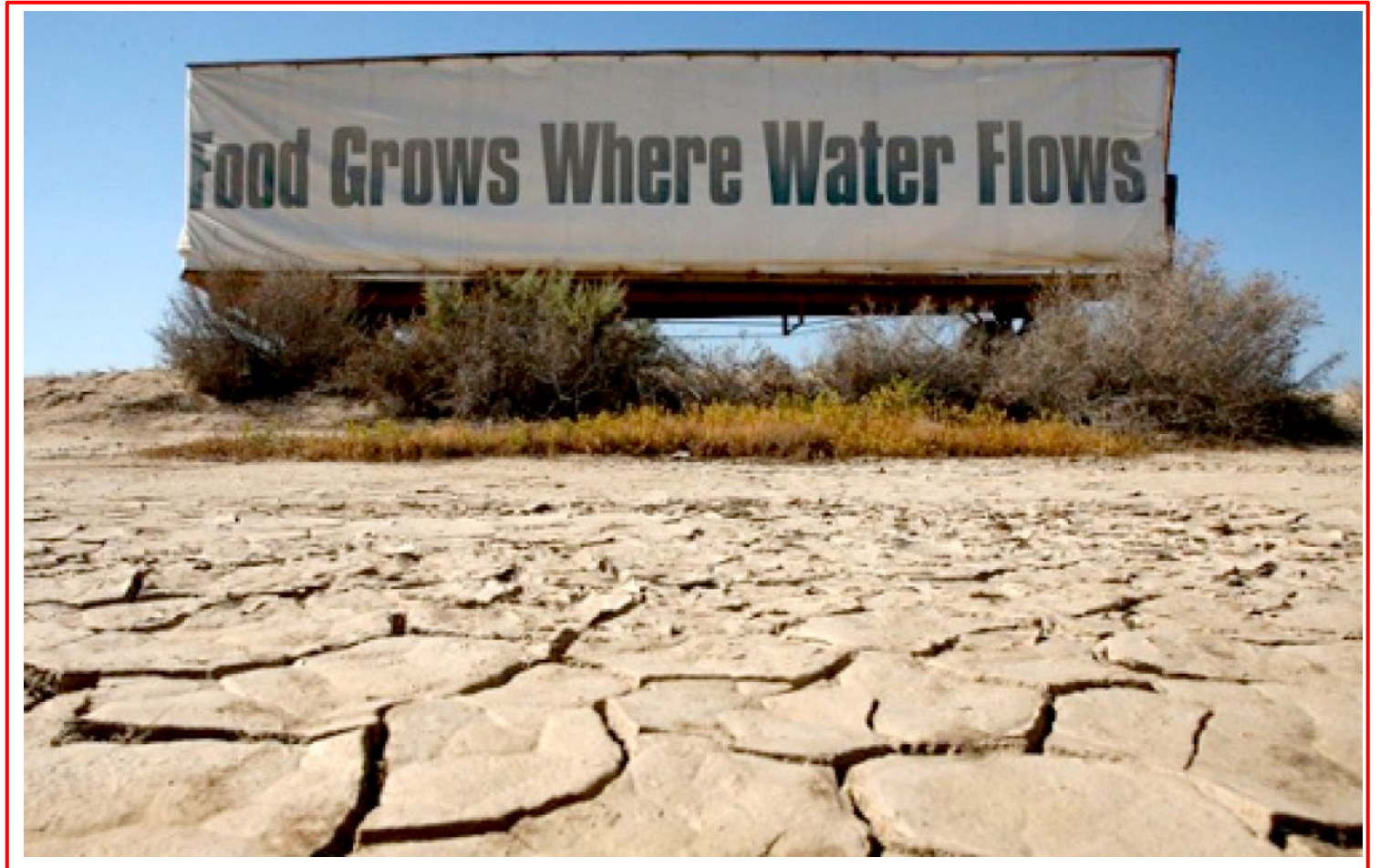
Industrial agriculture as one of the major causes of greenhouse gas production

Conventional agriculture and use of water resources

Focus on

Water use

Water
pyramids



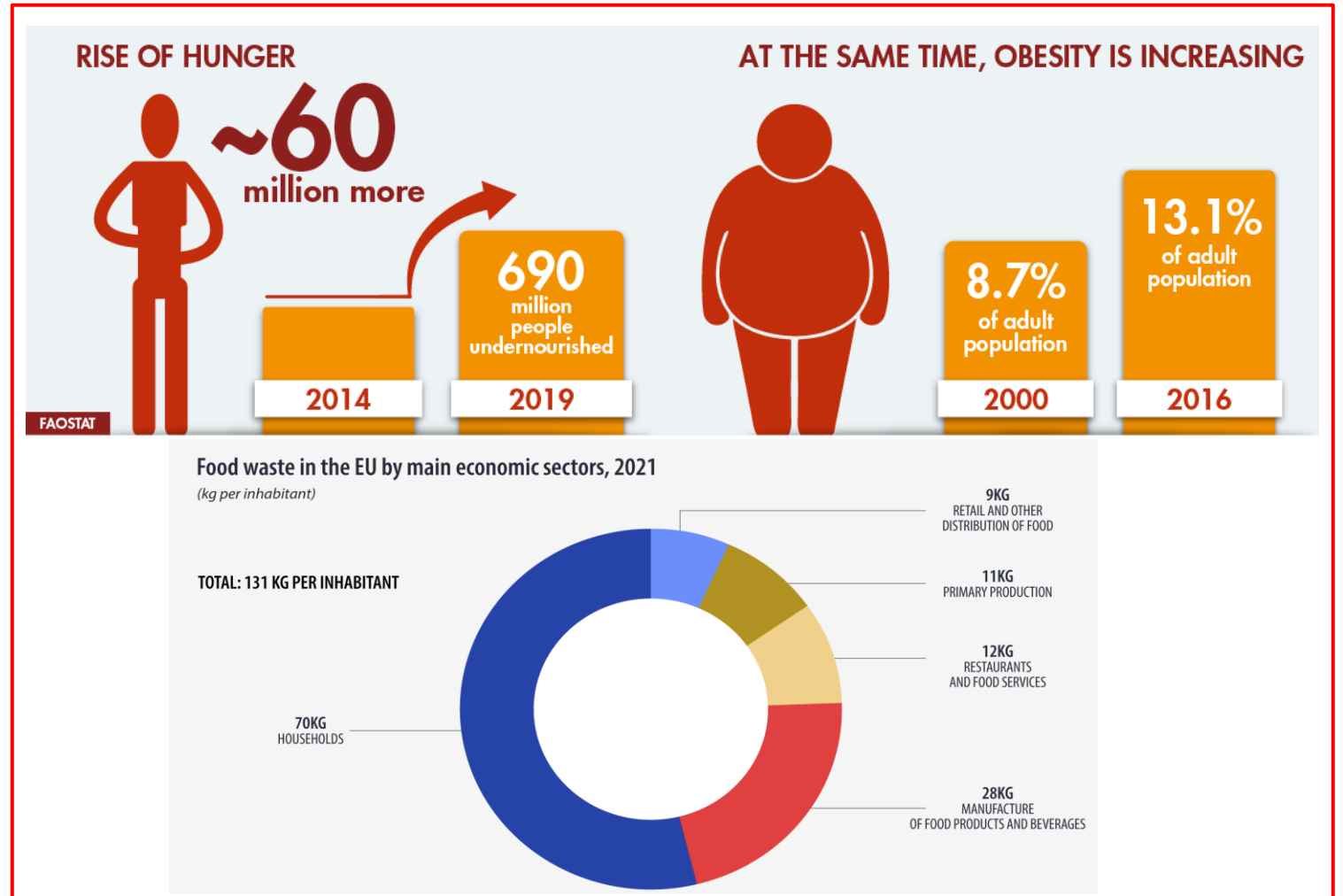
Industrial agriculture is based on an unlimited availability of fresh water for crops and farming.

Conventional agriculture, food availability and distribution

Focus on

Food justice

Food waste



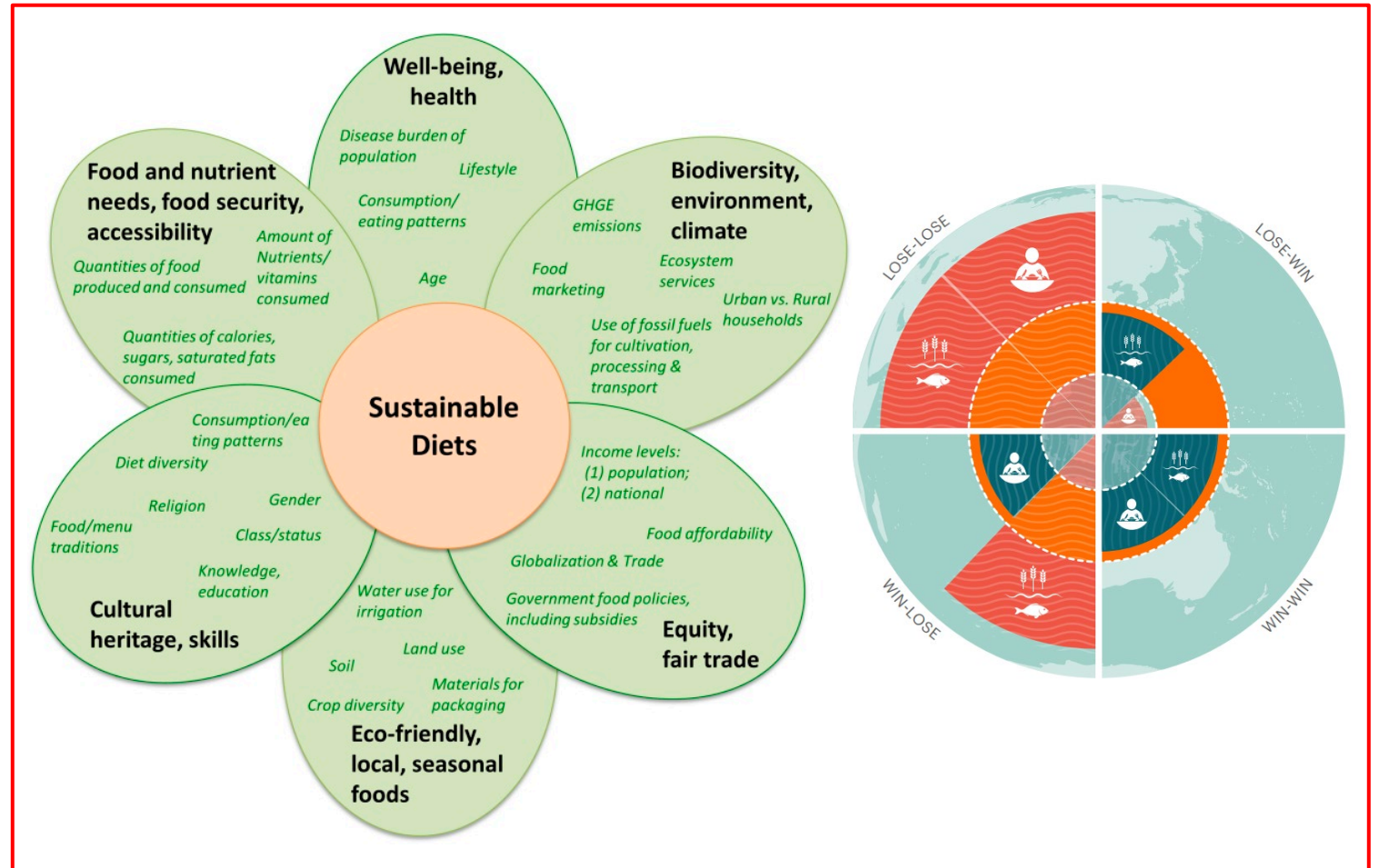
Industrial agriculture was created to produce much more food by using greater energy inputs

More sustainable diet for a better human health

Focus on

Meat
production

Meat
reduction



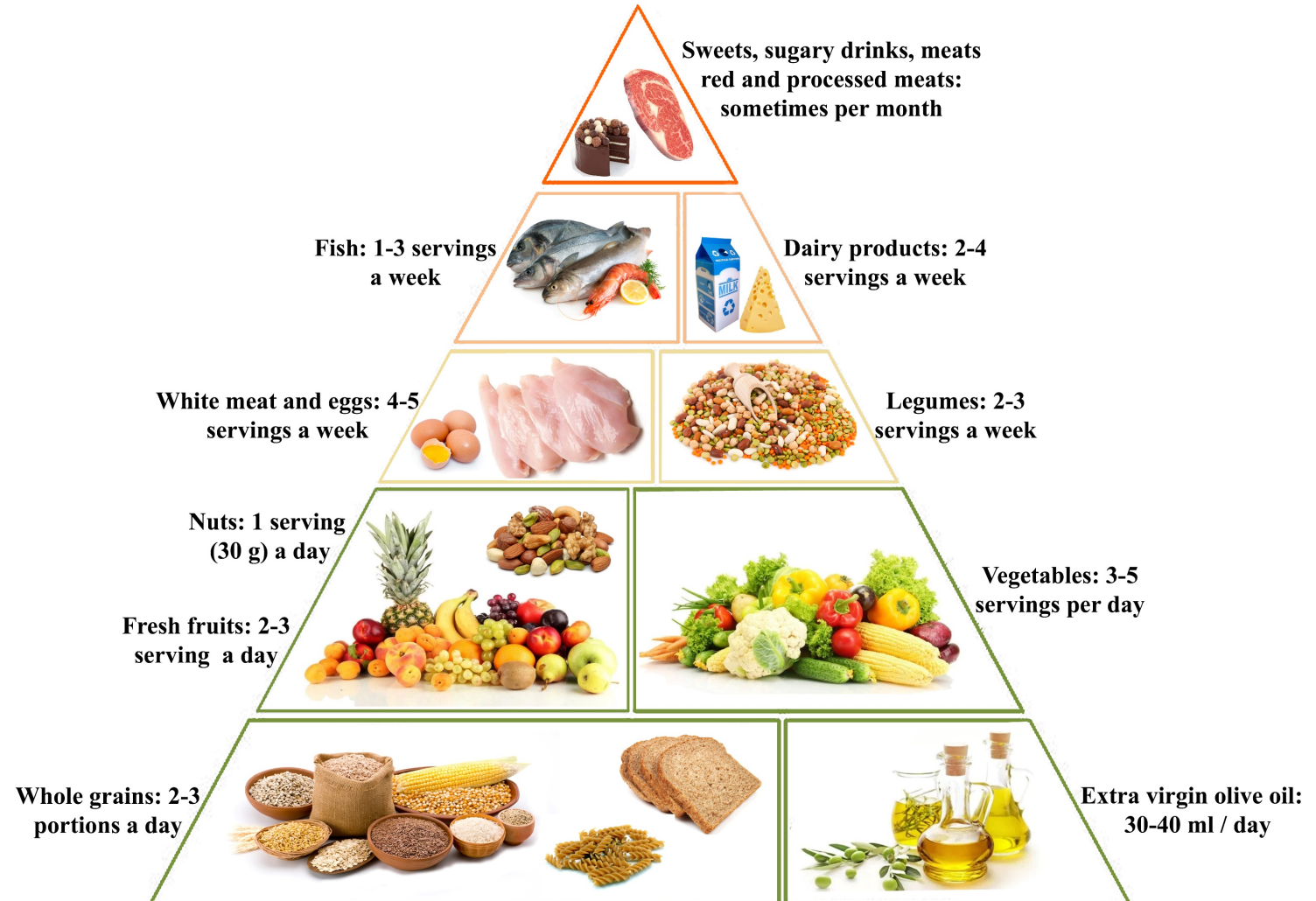
Sustainable diet and healthy diet can be converging objectives.

Healthy and sustainable nutrition plans

Focus on

MED diet

**Flexitarian
diet**



Mediterranean food pyramid

More sustainable food system for a better human health

Focus on

Mitigation

Adaptation



If it's bad for the planet, it's also bad for our health!!!



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HUMAN NUTRITION AND ENVIRONMENT

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Teaching method: frontal lectures;

Teaching aids: Power point presentations, textbooks, scientific articles;

Exam: oral or written (test with closed questions);

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