

**Course:** Building physics 1

**Lectures:** Basics of heat and moisture transfer in building materials and walls. Rules for designing building partitions in terms of thermal characteristics and humidity. Current requirements of thermal protection and protection against moisture condensation. Heat balance in buildings. Thermal bridges and their impact on heat losses from buildings. Comprehensive assessment of the energy performance of buildings. Energy-efficient and passive construction. Rationalization of thermal protection of buildings. Buildings and human health - room microclimate (factors shaping thermal comfort, ventilation and indoor air quality, air tightness of building envelope, sick building syndrome).

**Exercise:** calculations of heat and moisture accordance with the currently applicable standards in this area.

**Responsible person:** Anna Staszczuk, PhD

**More info:**

<https://webapps.uz.zgora.pl/syl/index.php?/course/showCourseDetails/1273122>