



## **Building Anatomy Systems**

### **Arch 505**

Instructor: Lars Junghans  
Meeting time: Mondays 8:30- 11:30 AM  
Room: 2222

### **Course Description**

This course is a collaborative class to support the Design Studio “Building Anatomies” of Prof. Craig Borum in the winter term 2020.

A focus of this course is to find sustainable solutions for vertically organized buildings. Goal is to find the right balance between (1) good architecture, (2) an optimized building envelope and (3) the technical effort for building operation to increase the comfort. The building performance evaluation will be done in terms of the net green house gas emission. To find the best design solutions in the intersection of esthetical and high sophisticated technical demands.

The course contains four sequential sustainable design steps:

1. “Passive” sustainable design strategies
2. Detail planning in high performance buildings
3. “Active” systems in high performance residential buildings (Building mechanical systems, HVAC)
4. Definition of renewable energy sources