

There is a growing evidence that thermal comfort, light levels and carbon dioxide concentration can have significant impact on alertness and performance. We have documented microclimate (temperature, relative humidity, light intensity level and CO₂ concentration) in 7 different lecture rooms throughout the year. We have not measured any extreme conditions but on significant amount of lectures the microclimate conditions were not optimal. Out of 68 measured lectures 2 had median temperature below 19 °C and 13 lectures over 24 °C, i.e. out of the recommended values. On the cold lectures, students were observed to wear jackets and on the hot ones students were frequently opening windows which also suggest that the thermal conditions were suboptimal. CO₂ concentrations were suboptimal mostly in winter, when 26 out of 39 lectures had median CO₂ levels above 1000 ppm which is, according to ASHRAE (American Society of Heating Refrigerating and Air-conditioning Engineers), an indicator for inadequate ventilation. Median CO₂ level for all lectures from both semesters was 1060 ppm. Even though window opening effectively lowers CO₂ concentrations, we found it to be as mostly a reactive behavior. It is very likely that if it would be done proactively, especially CO₂ levels could be kept significantly lower. Light levels were found to be very insufficient, but it is hard to draw any conclusions since the sensor did not properly measure indirect light.