

**From:** [Alina Handorean](#)  
**To:** [Faculty Senate](#)  
**Subject:** ASI in "Healthy Indoor Environments"  
**Date:** Monday, November 2, 2020 6:20:38 PM

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Dear Faculty Senate,

An interdisciplinary faculty team from three departments (ME, EDS, and AMS) would like to apply for a grant to support the development of a new ASI program, entitled "Healthy Indoor Environments". The program will include a hybrid of a selective three core courses and a capstone project, to augment students' knowledge from several major programs.

In general people, such as our Mines community, spend a significant part of the day indoors: from classrooms and offices to recreation centers and our homes. This is the place we work and learn, but most people do not notice that there are many systems involve in keeping us comfortable and safe. Heating, ventilation, and air conditioning (HVAC) systems process and clean the air. Harmful particles, such as those induced by SARS-CoV-2 virus, can also be transmitted in the air and hence we must also consider infrastructure-wide precautions.

There is evidence on the importance of assessing and improving building performance, especially during periods such as those we are currently experiencing. To this end, a specialization with focus on expertise required to understand, model, and design healthy indoor environments using dynamic data will be very valuable.

We are proposing to develop the Healthy Indoor Environments ASI to be offered to students majoring in areas such Mechanical and Civil and Environmental, to expend the knowledge and to allow our students to better prepare to solve modern, infrastructure, air quality problems.

Sincerely,

Healthy Buildings ASI

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