## PETITION TO SUBSTITUTE MASTER OF ARCHITECTURE BASIC STUDIES COURSE REQUIREMENT

### Number & Title of Course: ARCH 215  DESIGN FOR THE THERMAL AND ATMOSPHERIC ENVIRONMENT  3 UNITS

### Course Description:
Ideas, problems, and computations related to the design of buildings in response to the thermal and atmospheric environment; passive solar systems, mechanical control systems.

### Course Goals & Objectives:
This course deals with the thermal and environmental processes that affect buildings, and examines how the designer responds to or manipulates the thermal environment, with following objectives:

- to understand the physics of building systems;
- to understand the influence of glass on occupant comfort;
- to understand how occupant comfort is defined;
- to understand different space-conditioning systems; and
- to learn basic principles of sustainability.

### Required Curricular Topics addressed

<table>
<thead>
<tr>
<th>Topic</th>
<th>Met</th>
<th>Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Envelope</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Selection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Required Student Performance Criterion/a addressed:

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Met</th>
<th>Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.3 Sustainability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.8 Environmental Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.2 Human Behavior</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Topical Outline (include percentage of time in course spent in each subject area):
- Heating systems (20%)
- Cooling systems (20%)
- Thermal comfort (30%)
- Facades (10%)
- Space conditioning systems (10%)
- Energy consumption (10%)

### Textbooks/Learning Resources:

## FOR OFFICE USE ONLY

### Recommendation
- ☐ Substitution Approved  ☐ Substitution Denied  Date __________________

### Associate Director, Master of Architecture
- Selwyn Ting  Date __________________

### Comment
- __________________________________________________________
- __________________________________________________________