**McGill University School of Architecture, McGill University**

**ARCH 682/683: Directed Studio Research Project 1+ 2,**
**Fall 2013 – Winter 2014**

**Advisors:** Annmarie Adams, Martin Bressani, Ricardo Castro, Howard Davies, Michael Jemtrud, Alberto Perez-Gomez, Aaron Sprecher, Ipek Türeli

**Calender Description**
Arch 682
Design studio directed research project. Project development is self-directed in collaboration with a faculty advisor.

Arch 683
Culmination of project development in appropriate graphic format including a written component explicating design-based research strategies and results.

**Course Objectives**
The thesis is the keystone project in the 60-credit M.Arch. program, Design Studio Research (DSR),  at McGill University.  It is based on the long-established studio tradition particular to architectural education, the research methodologies associated with science and the social sciences, and the reflection cultivated in the liberal arts. It is an *idea*-driven endeavor that results in an architectural proposition through design and research. The two-semester process should result in a greater self-awareness of design strategies and methodologies related to the conception and production of architecture at both the personal and disciplinary levels.
The McGill University professional architecture thesis recognizes the specificity of architectural knowledge; it demands that students at this point in their careers demonstrate the ability to develop a convincing proposition for a constructed work, drawing on their interests, research and  life experience. The thesis project requires students to identify a potential condition for an investigation, and moreover to identify and organize the questions that arise from that condition. Thus the architectural "solution," or final project, is a convincingly argued response to specific research questions.
The expected outcome for ARCH 682 (Fall) is an architectural building or urban proposal. This proposal is the mark of a successful semester and readiness to advance to ARCH 683 (Winter). Any alternative methodologies and deliverables must be coordinated with and approved by individual advisors.  The results of ARCH 683 (Winter) are a convincingly argued response to this proposal by means of a major design presentation and a written thesis booklet.

**Course Organization + Instructional Methods**
Each student works with an advisory committee consisting of one primary and one secondary advisor. Students organize the project development, format, feedback and discussion with their advisors. Weekly meetings with the primary advisors are strongly recommended. Secondary advisors can meet with their thesis students at their discretion but are expected to attend each monthly review. Formal reviews with both advisors will be scheduled monthly.  Specific instructional methods are to be determined by each student with their advisory team. Formal reviews will also provide more detailed feedback and progress evaluations. Talia Dorsey will serve as resident thesis critic during some of these formal reviews.

There are no formal lectures associated with ARCH 682/683. If required, group meetings will be organized by the thesis coordinator and announced via e-mail.

**Schedule (subject to change by coordinator):**

ARCH 682
Introductory review: September 18th presentation of summer research / re-statement of project intentions) Value 10%
Preliminary review: October 16th Value 20%
Intermediate review: November 13th Value 20%
Final review: December 13th Value 50%

ARCH 683
Review 01: January 15th Value 10%
Review 02: February 12th Value 20%
Review 03: March 12th Value 20%

Review 04: April 15 / 16 + project presentations +submission of 1printed copy the thesis booklet
Digital hand-In: April 23rd - 2nd printed copy of thesis booklet + PDF
Value 50%

NB - Awards Jury: April 17th 0900hrs

Reviews will be graded by primary advisors. Students will be sent a mid-term grade immediately after the Preliminary review in ARCH 682 and the Review 02 in ARCH 683. The thesis coordinator must be sent a copy of each grade + is available to discuss any evaluation with both the advisor and the student.

**Requirements**
While a diversity of presentation techniques is welcome, the format of the final submission must include architectural drawings, models and a thesis booklet to be housed in the McGill University Libraries.  All materials, including at least 1 copy of the thesis booklet, are due at the date of the final review. The thesis booklet must include a summary of research undertaken over both fall and winter semesters for ARCH 682 and 683.  In general, the thesis booklet is to have less than 5000 words and be heavily illustrated.  Students must permanently submit two printed copies of the thesis booklet to the primary advisor and upload an electronic version to the McGill Libraries before a grade will be assigned for ARCH 683.

Advisors are responsible for passing along a copy of the booklet to the school collection, housed in the Media Centre. The second printed copy is for the primary advisor.

In addition In order to receive a final grade thesis students are required to hand-in a PDF version of their final thesis booklet and the signed waiver form (included with this outline)

The library provides this information about file type (PDF/A) and naming conventions for students uploading e-theses through grad studies:

http://www.mcgill.ca/library/library-findinfo/escholarship/submit/etheses/

You may hand-in your PDF on a single CD or more than one student ( even the entire group can share a single DVD) The deadline for this is April 23rd. The PDF's and signed waiver forms are to be handed into H Davies or placed in his mailbox.

**Evaluation**
Evaluation of the thesis and the student's standing may take place at any time during the Fall and Winter semesters at the discretion of the advisors. The final review for ARCH 682 must be successful in order for a student to move on into ARCH 683. Note that the evaluations for ARCH 682 + 683 are letter grades, rather than Pass/Fail.

The awards Jury on April 17th requires that all eligible work be fully displayed for evaluation. DSR students aren't present at this awards jury.

**Late Policy**
Students are required to present at all formal reviews. Withdrawing from a formal review without a valid reason forfeits half the graded value of the review (IE a review that would have been graded at 18/20 becomes 9/20) and requires that the student's work be reviewed within 7 days of the missed formal presentation to avoid a complete forfeit.

Inform your instructor in advance if you must be absent from a Pin-Up or any other studio activity. The only acceptable reasons for missing a formal review are:

1-Medical issues
2-Religious Holidays
3-McGill related activities requiring your attendance (IE member of a sports team etc)

2+3 require advance notification. 1 requires a medical note from a doctor.

**The Studio**
The DSR studio (RM 514) is intended as the communal setting for students to use in the completion of their final thesis projects. Any student who chooses not to use his or her assigned space in the studio because he or she intends to work at home should notify the coordinator. Any desk that is not in daily use by the end of the first month can be "claimed " for class use. This is a large studio which we will also use for monthly reviews.

**Reading List/Bibliography:** Variable, according to the student's faculty advisor and project.

**Student Performance Criteria ARCH 682:** A1-A6, A9, B1-B3, B7-B12, C1, C4, D1, D2, D5.

**Student Performance Criteria ARCH 683:** A1-A6, A9, B1, B4, B5, B7, B8, B9, B11

**A1. Critical Thinking Skills.**
*Ability to* raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well reasoned conclusions, and test them against relevant criteria and standards

**A6. Human Behaviour**
*Understanding* of the relationship between human behaviour, the natural environment and the design of the built environment.

**A9. Precedents.**
*Ability* to make a comprehensive analysis and evaluation of a building, building complex, or urban space.

### B1. Design Skills
*Ability* to apply organizational, spatial, structural, and constructional principles to the conception and development of spaces, building elements, and tectonic components.

### B3. Site Design
*Ability* to analyze and respond to context and site conditions in the development of a program and in the design of a project.

### B4. Sustainable Design
*Ability* to apply the principles of sustainable design to produce projects that conserve natural and built resources, provide healthy environments for occupants/users, and reduce the impacts of building construction and operations on future generations.

### B5. Accessibility.
*Ability* to design both site and building to accommodate individuals with varying physical and cognitive abilities.

### B7. Structural Systems
*Understanding* of the principles of structural behaviour in withstanding gravity and lateral forces, and the evolution, range and appropriate applications of structural systems.

### B8. Environmental Systems
*Understanding* of the basic principles that inform the design of environmental systems, including
acoustics, illumination and climate modification systems, building envelopes, and energy use with awareness of the appropriate performance assessment tools.

### B9. Building Envelopes
*Understanding* of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

### B11. Building Materials and Assemblies.
*Understanding* of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance.

### B12. Building Economics and Cost Control
*Understanding* of the fundamentals of development financing, building economics, construction cost control, and life-cycle cost accounting.

### C1. Detailed Design Development
*Ability* to assess and detail as an integral part of the design, appropriate combinations of building materials, components, and assemblies.

### C4. Comprehensive Design.
*Ability* to project a comprehensive design based on an architectural idea, a building program and a site. The design or designs should integrate structural and environmental systems, building envelopes, building assemblies, life-safety provisions, and environmental stewardship.

**D1. Leadership and Advocacy**
*Understanding* of the techniques and skills for architects to work collaboratively with allied disciplines, clients, consultants, builders, and the public in the building design and construction process, and to advocate on environmental, social, and aesthetic issues in their communities.

**D2. Ethics and Professional Judgment**
*Understanding* of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

**D5. Practice Organization**
*Understanding* of the basic principles of practice organization, including financial management, business planning, *marketing, negotiation,* project management, risk mitigation and as well as an understanding of trends that affect practice.


**Scholarships and prizes:**
Students in DSR are eligible for a number of prizes and awards. Descriptions of these can be found on the School of Architecture website:
http://www.mcgill.ca/architecture/scholarships#MI
Some of these prizes are determined based on a jury meeting on April 17$^{th}$ (the day after the final review) Thesis students must make sure their work is fully displayed for this important judging session.

Please note that all projects dealing with human subjects requires ethics review and approval before research can begin.  For more information, see:
http://www.mcgill.ca/research/researchers/compliance/human
If you have questions, see Annmarie Adams.

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see http://www.mcgill.ca/integrity for more information).

In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French any written work that is to be graded.