

# Architecture - Technical (ARCC)

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## Architecture - Technical (ARCC) Courses

### ARCC 5000 [0.5 credit]

#### Directed Studies in Architecture and Technology

Reading and research tutorials.

Prerequisite(s): permission of the School.

### ARCC 5001 [0.5 credit]

#### Introduction to Design and Multimedia

Multimedia and interactive design as they relate to architecture and the field of design. Special topics include virtual environments, user interface in software, Web and product design, perceptual and cognitive science, navigation, film/video and sound editing and animation technologies.

### ARCC 5002 [0.5 credit]

#### Topics in Design and Multimedia: Information Architecture and the World Wide Web

Introduction to the design of Web-based applications, focusing on process, site architecture, usability testing, and Web functionality. Students synthesize and customize software applications. Client and server-side functionality. Introduction to relational database design, JavaScript, cgi scripts, and «middleware» products such as WebObjects and ColdFusion.

### ARCC 5003 [0.5 credit]

#### Design and Technology Workshop

The prime objective of the workshop is to investigate issues in architectural design in relation to technology as a cultural paradigm. The workshop operates as a directed study with specific content, objectives, and scheduling arranged between student and academic advisor.

### ARCC 5096 [0.5 credit]

#### Building Technology I

General introduction to materials and methods of construction with particular focus on wood and timber frame construction. Site conditions, foundations, structure and envelope in terms of their response to local climate: sun (light and heat), wind, moisture.

### ARCC 5097 [0.5 credit]

#### Building Technology II

Technical issues involved in architectural design of buildings from ancient times to the present. Technological innovation and materials related to structural developments, and the organization and design of structures. Basic concepts of equilibrium, and mechanics of materials. Final projects developed in conjunction with design studio.

### ARCC 5098 [0.5 credit]

#### Building Technology III

Wood frame, post and beam, steel and concrete systems and construction techniques. Structural systems and building envelope principles and practice are explored in conjunction with mechanical and electrical systems in small buildings. Final projects developed in conjunction with design studio.

### ARCC 5099 [0.5 credit]

#### Building Technology IV

Medium scale steel, concrete, and wood frame buildings as case studies to explore approaches to building science principles, building envelope design, advanced construction methods and materials, acoustics and sound control, and fire protection, with a focus on sustainable design strategies and environmental impact.

### ARCC 5100 [0.5 credit]

#### Advanced Building Systems

Introduction to advanced design in building technology and systems integration. Leading edge building materials, technologies and philosophies will be explored through intensive case study research and analysis, comparing, and critically evaluating, traditional methods with current computer modeling and analysis techniques.

### ARCC 5200 [0.5 credit]

#### Professional Practice

The practice of architecture. Professional organization and conduct, the architect's services, business law, office organization and management, contract documents, building codes, contract management, cost control, accounting and site supervision. Guest speakers and case studies.

Precludes additional credit for ARCU 4200.

### ARCC 5401 [0.5 credit]

#### Workshop: Technical Studies in Heritage Conservation

Prerequisite(s): permission of the School.

### ARCC 5500 [0.5 credit]

#### Advanced Design Economics

Principles of building economics. Determinants and prediction of building costs. Uncertainty and investment economics. Creative cost control for buildings during schematic design, design development, construction document preparation and construction. Economic evaluation during all phases of design process; emphasis on sustainable strategies.

### ARCC 5909 [2.0 credits]

#### M.Arch. Post-Professional Thesis (Design and Technology)

Basic or applied research in architectural, industrial, and digital design. Areas include interactive education/training, product/interface design, programming/scripting, culture/technology, or research as defined by the student. Proposals must be approved by the Graduate Committee of the Azrieli School of Architecture and Urbanism. Final thesis documentation must satisfy the requirements established by the Faculty of Graduate Studies.

**Summer session:** some of the courses listed in this Calendar are offered during the summer. Hours and scheduling for summer session courses will differ significantly from those reported in the fall/winter Calendar. To determine the scheduling and hours for summer session classes, consult the class schedule at [central.carleton.ca](http://central.carleton.ca)

Not all courses listed are offered in a given year. For an up-to-date statement of course offerings for the current session and to determine the term of offering, consult the class schedule at [central.carleton.ca](http://central.carleton.ca)