CABE Minors/2024-2025

College of Architecture and the Built Environment

**Thomas Jefferson University**

**Guide to Minors—FAQ**

**What is a minor?**

A minor is a secondary area of interest that often complements a student’s major. Although not a degree requirement for CABE, many students choose to pair their major discipline with another related design field. A minor allows students to group some related electives in a meaningful way, providing a set of courses that provides supplemental study in a particular subject area. Options for minors are determined by the academic program and consist of a minimum of ***twelve credits in the subject area***. Guidelines for available minors are below:

* A student may not combine a major and minor in the same or similar functional area (e.g., an Interior Design major and an Interior Design minor).
* A student may not use the same course for credit in both the major and minor areas. In other words, only general elective credits can be applied to the minor.
* Most minors consist of at least one required course, completed by a selection of courses from which the student may choose. Any substitute elective course from within the minor discipline must be approved.

**Why choose to study a minor?**

In addition to integrating and unifying subjects covered in general electives, minors enable students to pursue secondary areas of interest and to develop a knowledge base and skill sets that complement their major area.

By layering a secondary area onto a primary field of study, minors indicate versatility and flexibility to a prospective employer, increasing a student’s marketability and expanding prospects for internships and future employment.

**What is a “custom minor”?**

With a “custom minor” students may compose their program of study upon approval of their Academic Advisor and the appropriate Program Director/s. Custom minors afford students the ***opportunity for intra-disciplinary and/or interdisciplinary exploration***. Custom minors may combine courses from several CABE disciplines, for example, Interior Design and Historic Preservation, Landscape Architecture and Sustainable Design, etc.

A custom minor is a ***thematic*** ***or discipline-specific*** grouping of four courses from any of the Colleges and is appropriate only for courses that are currently delivered at Thomas Jefferson University, i.e. existing faculty & facilities within the University must support the topic of the custom minor. A proposal for a special minor, including a written rationale, must be approved.

At least 6 credits toward the custom minor must be completed in residence, and the courses utilized for the custom minor, whether in residence or transfer, must currently exist in the University catalog.

A maximum of 3 credits may be delivered as Independent Study or Course-by-Appointment. The student must have approval to design a custom minor. The “Declaring a Custom Minor” form contains complete details and is available online from the Academic Success Center website:

<https://www.jefferson.edu/content/dam/academic/east-falls/academic-success-center/documents/DeclaringaCustomMinor.pdf>

**When should I declare a minor?**

A student may choose a minor with the assistance of an academic advisor upon completion of 60 semester hours, which for most students is at the beginning of their 3rd year. To formally declare a minor requires filling out the **“CABE-Declaring Minor”** form, available at the **Office of the** **Registrar** **website** <https://www.jefferson.edu/registrar/forms.html> and in conjunction with the student’s academic advisor. ***The form must be signed by the student, the academic advisor, and the program director of the student’s minor area. A list of proposed courses must also be included.*** Once officially “declared,” the minor will be listed on the student’s transcript directly under the name of the student’s major.

Students may choose to declare a minor at any point after the required 60 completed semester hours. ***However, it is advisable to map out a plan for your courses in advance, preferably before your last year, to ensure that******you can schedule the courses needed to complete the minor****.* Some courses are only offered once a year during specific semesters. Moreover, certain courses in the minor may have prerequisite courses that need to be completed. Consult your academic advisor.

**Suggested CABE Minors**

**Architectural History/Theory 12 credits**

This minor offers students the opportunity to study art/architectural history and theory beyond the introductory level. The courses listed provide in-depth knowledge and analysis of historical periods and theoretical issues relative to the meaning and practice of architecture and related disciplines.

Choose four of the following: Course Title Pre-requisites

ARST-422 Issues in Contemporary Architecture AHST-305

ARST-221 Issues in Contemporary Preservation AHST-206

ARCH-320 Ecology and Making AHST-305

ARST-341 American Architecture AHST-206

ARST-410 Vernacular Architecture AHST-206

ARST-302 Uncovering the Past: Tools, Methods, Strategies AHST-206

ARST-403 Restoration & Rehabilitation of Modernist Bldgs. AHST-305

ARST-425 Meaning in Architectural Ornament AHST-206

ARST-434 Water and Architecture AHST-206

ARST-428 Restoration/Rehabilitation Interiors AHST-206

POTO-307 History of Photography WRIT-2xx

ARST-471 Design Theory/Special Topics AHST-306

**Construction Management 12 credits**

This minor introduces construction management concepts and principles as applied to contemporary practice and investigates the intersecting roles of construction managers, architects, clients, and general contractors. Topics encompass planning, programming, and documentation from pre-construction to project close-out; legal aspects relative to environmental protection, public and worker safety; contract documents; insurance and bonds; labor relations and inspection; project control; estimating and scheduling; total quality and ethics; and the development of analytical and communication skills.

Required Courses Course Title Pre-requisites

1.CMGT-102 Intro to the Construction Industry (Fall only) None

OR CMGT 607 Intro to Cons. Project Management (Fall only) None—Email form

2.CMGT-104 Intro to Estimating and Scheduling (Spring only) CMGT-102

Any two of the following:

Fall only: CMGT-202, CMGT-410, CMGT-618

Spring only: CMGT-200, CMGT 206, CMGT-401, CMGT-601 Codes and Specs, CMGT-614

Fall or Spring: CMGT-403

Suggested Order of Courses:

|  |  |
| --- | --- |
| Option 1 (Start in Fall - SUGGESTED) | Option 2 (Start in Spring) |
| Fall – CMGT-102 or CMGT 607 (Fall only) | Advisor fills and submits a prereq waiver form for CMGT 104 (CMGT-102 to be taken next semester).  Spring – CMGT-104 (Spring only) |
| Spring – CMGT-104 (Spring only) | Fall – CMGT-102 or CMGT 607 (Fall only)  Fall - Any one of the courses from the list above |
| Fall - Any one of the courses from the list above. | Spring – Any one of the courses from the list above. |
| Spring - Any one of the courses from the list above. |  |

\*\*Note:

—The required courses (CMGT-102, CMGT 607, and CMGT-104) cannot be substituted with any other courses.

—The ideal time to declare a CM Minor/start taking CM courses for ARCH department students is the Fall semester of their 3rd year to avoid potential scheduling conflicts. If you have scheduling conflicts, use Option 2 above and contact your Advisor to map out a new course plan.

—All forms are to be emailed to the CM Program Coordinator.

**Historic Preservation 12 credits**

This minor provides a foundation in the field of historic preservation. Courses cover contemporary practice and fieldwork, sustainability issues, building conservation, methods of archival research, standards for documentation, American architectural traditions, as well as design considerations in the adaptive reuse of historic structures.

Required Course Course Title Prerequisites

ARST-221/MHP-621 Issues in Contemporary Preservation (Fall only) AHST-206

**Choose three of the following:**

ARST-302/MHP-602 Uncovering the Past: Tools, Methods & Strategies (Spring only) AHST-206

ARST-324/MHP-624 Architectural Forensics & Documentation (Fall only)

ARST-266/MHP-626 Building Conservation & Assessment (Fall only)  ARFD-102

ARST-403/MHP-603 Restoration & Rehabilitation of Modernist Bldgs.(Spring only) AHST-305

ARST-341/ARCH-672 American Architecture (Fall only) AHST-206

ARST-410/ARCH-671 Vernacular Architecture (Fall only) AHST-206

ARST-412/MHP-622 Adaptive Reuse & Urban Revitalization (Fall only) ARCH-214 or INTD-202

ARST-404/MHP-604 Conservation Historic Building Interiors (Spring only)ARCH-102 or INTD-102

POTO-436/MHP-606 HABS Photography (Fall only) None

\*\*Note—Historic Preservation courses are cross-leveled, offering undergraduate and graduate options. Students interested in the dual degree/MS Historic Preservation should consult the Program Director to map appropriate coursework.

**Photography 12 credits**

This minor provides a foundation in photographic techniques, processes, history and theory. Coursework focuses upon photography: as a tool for the documentation, research and preservation of architecture, as part of visual culture in its application to commercial, fashion, advertising and product design, and as a medium for self-expression.

Required Courses Course Title Prerequisites

POTO-101 Intro to Photography: Black and White None

POTO-102 Intro to Photography: Digital None

POTO-307 History of Photography WRIT201/202

**Choose one of the following**: POTO-436, POTO-201, POTO-204, POTO-303, POTO-205

**Real Estate Development 12 credits**

This minor introduces the economic, social, and physical issues inherent in environmentally and fiscally sustainable real estate and land-use development. Through real-world case studies presented by leading developers, coursework encompasses market analysis and valuation, finance and investment, legal issues of ownership and land use, public-private partnerships, urban regeneration and adaptive reuse, construction science and management, in addition to multiple design and development paradigms and their long-term local, national, and global impacts. Sustainable strategies inform a curriculum sensitive both to the ethical dimension of development and the parameters of a capital-driven market.

Required Course Course Title Prerequisites

MRE-601 Sustainable Real Estate Development Process None

**Choose three of the following**:

MRE-604 Case Study: Mixed-Use, Commercial, & Health Care Facilities. MRE-601

MRE-620 Urban Revitalization, Historic Neighborhoods & Adaptive Reuse MRE-601

MRE-638 Sustainable Affordable Housing MRE-601

MRE-630 Market Analysis and Valuation MRE-601

MRE-615 Real Estate Finance and Investment MRE-601

MRE-635 Public-Private Partnerships MRE-601

MRE-625 Real Estate Law and Ethical Practices MRE-601

**Sustainable Design 12 credits**

The minor introduces students to the theory of sustainability and how it is applied in the built environment. Students will be grounded in the methodologies of sustainable design, learn to measure, predict and design for thermal comfort, adaptable opportunities and resilience across scales. Students will also learn how to design and calculate sustainable systems, and learn to evaluate, compare, perform life cycle analyses of materials. Pick four of the following courses:

Required Courses Course Title Prerequisites

SDN 601\* (Fall, Spring, Summer) Sustainable Design Methodologies None

SDN 602 (Fall on-line only) Adaptive Design None

SDN 603\* (Summer on-line only) Sustainable Systems None

SDN 604\* (Fall or Spring) Green Materials & Life Cycle Assessment None

SDN 609\* (Fall, Spring, Summer) BIM for Sustainable Design None

\*Available as an asynchronous course. The schedule for the course is not decided until the beginning of the semester. This means that students can take this course even if there is a conflict and watch the recorded lectures each week.

**GIS (Geographic Information Systems) 12 credits**

This minor in GIS (Geographic Information Systems) consists of four courses in geospatial technology and provides students with the opportunity to apply geospatial technology to various disciplines. The courses span introduction to advanced concepts in geospatial technology and include desktop as well as internet technologies.

Required Courses Course Title Prerequisites

LARC-310/GEOD-610 Intro to GIS None

MUD 604 Emerging Design and Technology for Future Cities

GEOD-617 Adv GIS: Advanced GIS for Urban Planning and Development

GEOD-625 Internet GIS Tech None

**Urban Design 12 credits**

This minor provides an introduction to fundamental concepts and methods of urban design, and explores sustainable and smart cities. The required and recommended courses offer students an in-depth knowledge and advanced tools to address climate change, public health, pandemics and other challenges by incorporating urban analytics, environmental modeling, computational design, geospatial technology, and smart technologies into urban environments. 1(2 credits)

Required Course Course Title Prerequisites

MUD-600 (Fall only) Modeling Urban Environmental Performance None

LARC-310/GEOD-610 Intro to GIS None

**Choose two of the following**:

MUD-604 (Spring only) Emerging Design and Technology for Future Cities None

LARC-515/MUD-615/GEOD-615 Adv GIS: Urban Spatial Analytics I LARC-310/GEOD-610

MUD-617/GEOD-617 Adv GIS: Urban Spatial Analytics II LARC-310/GEOD-610

MHP-622/ARST-412 Adaptive Reuse & Urban Revitalization ARCH-214 or INTD-

202 or LARC-300

MUD-602 History and Theory of Urban Design None

GEOD-625 Internet GIS Tech None

SDN-601 Sustainable Design Methodologies None

MRE-601 Sustainable Real Estate Development Process None

EOD-604/LARC-412 Urban Hydrology None

**Computational Design 12-13 credits** This minor introduces students to the concepts and applications of computation in architectural design, and explores computational design thinking through novel techniques, tools, processes and theories, including parametric design, geometric reasoning, algorithmic modeling, performance-based modeling, physical computing, data visualization, and digital fabrication. This minor focuses on understanding the implications of computation on design and creative processes.

Select four courses from the choices below:

|  |  |
| --- | --- |
| ARCH-324 | Experimental Modeling (\*Theory Seminar; prereq ARCHDSN-208) (3 credits) |
| ARCH-413 | Experimental Structures (\*Theory Seminar; prereq: ARCH-304 or AENGR-305) (3 credits) |
| ARCH-414 | Experimental Materials (prereq: ARCH-303 or AENGR-301) (3 credits) |
| ARCH-415 | Multimedia (Prereq: ARCHDSN 208 or GRAPH 202) (3 credits) |
| INTD-306 | Adv. Visualization: Interiors (prereq: ARCHDSN-208 & INTD-202 with min grade  C) (3 credits) |
| ANIM-307 | 3D Modeling (prereq: ANIM-202) (3 credits) |
| ANIM-308N | 3D Animation (prereq: Anim-307 with min grade C) (4 credits) |
| MATH-3xx | Data Visualization (prereq: in CSHLA) |
| ENGR-104 | Introduction to Computing (3 credits) |

**Interior Design 12-16 credits**

The Interior Design Minor consists of four courses unique to the interior design curriculum and totaling 12-16 credits. The selection of courses offered for the minor will expand the knowledge of architecture and architectural studies students to better understand the special requirements of interior design.

For **B.S. in Architectural Studies** students who wish to minor in interior design the required courses include at least one interior design studio and three other interior design courses (= 4 courses). Students will complete 13-16 unique credits for the minor from the following list:

Required Courses Course Title Prerequisites

1) Select **one** from the list below:

INTD-201 Design 3 for Interior Design (4 cr.) INTD-102 or ARCH-213 & permission

(option for Architectural Studies student only)

INTD-202 Design 4 for Interior Design (4-cr.) INTD-201 or ARCH-213 & permission

INTD-301 Design 5 for Interior Design (6 cr.) INTD-202 or ARCH-214 & permission

Note: In special cases, a graduate studio in interior architecture may be substituted for an UG studio with permission from the department chair.

2) Select **three** from the list below that have not already been completed:

INTD-201 Design 3 for Interior Design (4 cr.) INTD-102 or ARCH-213 & permission

INTD-202 Design 4 for Interior Design (4 cr.) INTD-201 or ARCH-213 & permission

INTD-301 Design 5 for Interior Design (6 cr.) INTD-202 or ARCH-214 & permission\

INTD-206 Interior Building Technology (3 cr.) ARCHDSN-210 & INTD-201 or ARCH-213 & permission

INTD-310 \*\* Textiles & Materials for Interior Design (3 cr.) ARCHDSN-210 & INTD-201 or ARCH-213 & permission

INTD-325/ DSGN-371 Furniture Design (3 cr.) INTD-301 or ARCH-311 & permission

IARC-603 History II for Interior Arch. (3 cr.) AHST-206 & permission

IARC-608 Light and Color (3 cr.) ARCH-212 & permission

For **Bachelor of Architecture** students who wish to minor in interior design at least one interior design studio must be taken. If the BArch student takes an interior design studio\* for the ARCH-401 Design 7 option of the BArch degree requirement then the four courses (12-16 cr.) taken for the interior design minor do not have to include an interior design studio. However, if the BArch student has not completed an interior design studio for the ARCH-401 Design 7 requirement then the student is required to take an interior design studio\* as one of the four courses that count toward the minor. Select **four** from the list below that have not already been taken to count as ARCH-401 Design 7 for the BArch degree requirement (must complete a min. of 12 unique credits for the minor):

Required Courses Course title Prerequisites

**Interior Design Studios:**

INTD-201 Design 3 for Interior Design (4 cr.) INTD-102 or ARCH-213/permission

INTD-202 Design 4 for Interior Design (4 cr.) INTD-201 or ARCH-213/permission

INTD-301 Design 5 for Interior Design (6 cr.) INTD-202 or ARCH-214/permission

Note: In special cases, a graduate studio in interior architecture may be substituted for an UG studio with permission from the department chair.

**Other Interior Design Courses:**

INTD-206 Interior Building Technology (3 cr.) ARCHDSN-210 & INTD-201 or ARCH-213 & permission

INTD-310 \*\* Textiles & Material for ID (3 cr.) ARCHDSN-210 & INTD-201 or ARCH-213 & permission

INTD-325/ DSGN-371 Furniture Design (3 cr.) INTD-301 or ARCH-311/permission

IARC-603 History II for Interior Arch. (3 cr) AHST-206 & permission

IARC-608 Light and Color (3 cr.) ARCH-212 & permission

**Building Technology (Architectural Studies students only) 12 credits**

This minor provides an intermediate understanding of the theory and principles of systems and technology as applied to buildings. Topics encompass structural systems, loading, and materials; dynamic building systems; and the relationships of structures, environmental systems and building enclosure within a variety of building typologies. Depending on selected fourth course, students will focus on building structures or enclosures, in a theoretical or

experimental mode, or on buildings as system components in their environment.

Required Courses Course Title Pre-requisites

ARCH-304 Structures 2 ARCH-303

ARCH-313 Technology 3: Dynamic Enviro. Systems ARCH-212

ARCH-314 Technology 4: Advanced Building Analysis ARCH-313

**One of the following**:

ARCH-413: Experimental Structures ARCH-304 or AENGR-305

ARCH-414: Experimental Materials ARCH-304 or AENGR-301

ARCH-419: High Performance Bldg Envelope ARCH-304 and ARCH-313

ARCH-426: Design/Build ARCH-212 or LARC-207

LARC-310: GIS for Landscape Arch LARC-201 or ECBIO-301

**Landscape Architecture\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

These two 12 credit minors, **Landscape Design** and **Landscape Planning,** introduce the student to the field of landscape architecture.

For the **Landscape Design** minor, the required courses cover the various areas—history/theory, Technology, horticulture and design—that constitute an understanding of the discipline relative to design.

Choose one of the following technology and /or horticulture courses (3 credits): LARC-212 Local Flora Spring Semester LARCH-305 Plant Community Ecology Fall Semester SCI-110 Landscape Ecology Fall and Spring Semester LARC- 312 Sustainable Planting Spring Semester

LARC-310 GIS Fall and Spring Semester LARC-409 Materials and Methods Spring Semester

LARC-412 Urban Hydrology Fall Semester

Choose one history/theory courses (3 credits): LARC-206 History I, LARC-307-History II Choose one of the following LARC studios (6 credits): LARC-300, LARC-304, LARC-400, LARC-401 For the **Landscape Planning** minor, the required courses cover the various areas—technology and history—that are needed for an understanding of the discipline relative to planningChoose two or three of the following technology and /or horticulture courses (3 credits each): LARC-212 Local Flora Spring Semester LARCH-305 Plant Community Ecology Fall Semester SCI-110 Landscape Ecology Fall and Spring Semester LARC- 312 Sustainable Planting Spring Semester LARC-310 GIS Fall and Spring Semester LARC-409 Materials and Methods Spring Semester LARC-412 Urban Hydrology Fall Semester

Choose one or two history/theory courses (3 credits): LARC-206 History I, LARC-307-History II,