

7 • School of Architecture

General Information

Reflecting Jefferson's interest in architecture, courses in architectural drawing and construction were taught at the University as early as 1832. Students now, as then, benefit from the proximity of Jefferson's classical structures and the availability of his plans and drawings for the University Grounds and other buildings. At the end of World War I, a formal curriculum in architecture began, and from the mid 1950s through the early 1970s the School of Architecture continued to expand its programs. Today a student may receive a baccalaureate in architectural history, urban and environmental planning, and architecture.

The faculty believes that each student deserves personal attention and guidance. The School of Architecture has a small, carefully selected student body. The school seeks applicants with strong academic records and demonstrated artistic creativity.

A prospective student applies to one of the three undergraduate departments, but can apply to transfer from one program to another during the first or second year.

The undergraduate program in architecture combines a solid humanities foundation with an emphasis on the role of architecture as cultural expression, and provides two to three years of studio experience in the development of architectural ideas and the design of built form. Most graduates of this program go on to advanced degrees in architecture and related fields.

The undergraduate program in architectural history is the only one in the United States. The program is directed toward developing knowledge and an understanding of the history of the built environment: architecture, cities, and landscapes. Opportunity is also provided for an introduction to the issues and practices of historic preservation. After attaining this degree, most graduates of this program go on to advanced degrees in architectural history, art history, architecture, landscape architecture or planning.

The undergraduate professional program in urban and environmental planning is one of less than a dozen such programs in the nation accredited by the Planning Accreditation Board. The study of planning theory, processes, and methods is integrated with the contextual exploration of political and market forces, resource limitations, environmental concerns, and social needs. With the Bachelor of Urban and Environmental Planning degree, many graduates go directly into professional jobs with governmental agencies or private planning and development firms.

Others go on to advanced degrees in planning, architecture, law, public administration, and business.

Address

School of Architecture
P.O. Box 400122
Campbell Hall
University of Virginia
Charlottesville, VA 22904-4122
University Admissions: (434) 982-3200
www.virginia.edu/~arch/

Academic Information

The School of Architecture offers three undergraduate programs of instruction under the Departments of Architecture, Urban and Environmental Planning, and Architectural History. Supporting course work is offered through the cooperation of departments in the College of Arts and Sciences and the Graduate School of Arts and Sciences.

The specific degree requirements for each program depict the general structure and the number of credits necessary for each degree. Evaluation of courses and curricula modification are continuing processes in the school. Therefore, the specific degree requirements are subject to change.

Bachelor of Science (Architecture) The undergraduate degree in architecture offers students an opportunity to combine a foundation in the liberal arts with course work in architecture. The four-year, preprofessional program prepares graduates to pursue a variety of career paths and graduate programs. Students who wish to continue in architecture would complete the requirements of the professional, accredited architecture degree at the graduate level.

Most states require that an individual intending to become an architect hold an accredited degree. There are two types of degrees that are accredited by the National Architectural Accrediting Board (NAAB): the Bachelor of Architecture, which requires a minimum of five years of study; and the Master of Architecture, which requires a minimum of three years of study following an unrelated bachelor's degree, or two years following a related preprofessional bachelor's degree. These professional degrees are structured to educate those who aspire to registration and licensure as architects.

The four-year, preprofessional degree, where offered, is not accredited by NAAB. The preprofessional degree is useful for those who desire a foundation in the field of architecture as preparation for either continued education in a professional degree program

or for employment options in architecturally related areas.

Bachelor of Urban and Environmental Planning

The Bachelor of Urban and Environmental Planning is a professional degree recognized by the Planning Accreditation Board. The program has a strong liberal arts emphasis, and the student is expected to take a majority of the first two years of course work in the College of Arts and Sciences. During the final two years, the student has a wide range of professional seminars and application courses to choose from in the areas of environmental planning, land use planning and growth management, and urban development and housing policy. This course of study is designed to develop an integrative knowledge of environmental and community processes, professional skills, and leadership.

Bachelor of Architectural History This four-year program is the only one of its kind in the country. Students are offered a liberal arts education with an emphasis on the study of architectural history. This degree program provides an introduction to the problems of historic restoration and preservation, while offering ample opportunity for interaction with the three other departments in the school.

Study Abroad The School of Architecture encourages study abroad by offering programs in Helsinki, Finland and Copenhagen, Denmark, as well as summer programs in Vicenza, Italy and Beijing, China. All students in the School of Architecture are eligible for these programs. For departmental regulations governing participation, contact the director of programs abroad representative in Campbell Hall; (434) 924-3937.

Requirements

Residence Requirements and Transfer Credits

Prospective students must apply to one of the three undergraduate programs. All three programs place substantial emphasis on the liberal arts and include a significant number of courses offered in the College of Arts and Sciences, most of which are taken in the first two years. All three programs also normally require four years for completion and a minimum of two years as a full-time student in the School of Architecture. In some cases, summer session study at the University is also required of transfer applicants.

Credit toward a degree is allowed for work comparable to courses offered at the University, if such work has been completed in an accredited college. Credit is not granted for work completed elsewhere with a grade less than C or its equivalent. The dean of the

School of Architecture governs the awarding of transfer credit.

In no case are transfer credits in excess of 60 granted toward an undergraduate degree in the School of Architecture. The school does not accept pass/fail courses for transfer credit.

In exceptional circumstances, the School of Architecture dean may waive an admission or performance requirement when, in the dean's judgment, such action best serves the intent of the program.

Required Courses A student who enters the School of Architecture without transfer credits must complete, at this University in Charlottesville, all prescribed courses in the curriculum for which she or he is a degree candidate. Students transferring from another college or university must complete, at this University in Charlottesville, all required courses in those subjects not completed at the time of first admission to the School of Architecture. Exceptions may be made to these requirements provided permission is granted in advance by the dean of the School of Architecture.

Candidates for a degree from the School of Architecture must complete the courses in the curriculum for which they are registered, as outlined in the subsequent pages. In addition, candidates must maintain a GPA of at least 2.0 in all courses taken at the school or University and offered for a degree.

The dean of the School of Architecture may waive a specific course requirement for a degree when, in the dean's judgment, such action best serves the intent of the program.

Minors A minor in architecture provides students with an opportunity to develop a basic understanding of, and appreciation for, architecture as an important component of culture and the built environment. The minor requirements are under the curricula section.

A minor in architectural history requires 18 AR H credits, including AR H 101, 102, and 12 credits of AR H electives. No thesis is required.

A minor in urban and environmental planning requires 15 credits of planning courses. Students may choose from among any PLAN course, with no more than 6 credits at the 500 level. Students outside of the school should take at least one plan-making course.

A minor in historic preservation requires 15 credits, nine of which must be from among the following courses in the foundations of preservation core: AR H 590, 351, 352 or 353; ARCH 511, 515; and PLAN 530. Six credits from among more specialized preservation courses are also required. These include, but are not limited to, AR H 515, 554; L AR 523, 512; PLAC 565; PLAN 534, 571; ARCH 512, 513, 516, 517, 522, and 589.

A minor in landscape architecture requires a minimum GPA of 3.0, five courses,

and at least 15 credits in landscape architecture. These credits include L AR 512; two courses from among L AR 505, 507, 517, and 535; and at least two of the following: L AR 513, 514, 520, 525, or a University seminar taught by landscape architecture faculty. Students in the Architecture Department are strongly encouraged to take a 400 level studio in Landscape Architecture (subject to availability). Students outside the Architecture department are strongly encouraged to take ARCH 102 Fundamentals of Design (3) in addition to the courses listed above. Student in the College of Arts & Sciences must submit a "Degree Application Form" to their advisor in Landscape Architecture.

Applications for the five minors are available in Campbell Hall, Room 202. Upon completion of all requirements, the signature of the respective department chair must be obtained.

Intra University Courses ARCH 101, 102; L AR 512; and all AR H courses are recognized as College equivalent. In addition, AR H 100, 101, 102, 150, and 333 count fully as College courses and meet the area requirement in the humanities/fine arts.

Evaluation Because continuance in the School of Architecture depends on demonstrated ability and promise of professional and academic achievement, each student's performance is evaluated at the end of every semester.

Program Flexibility Curricular requirements for the first two years of the Bachelor of Science in Architecture, Architectural History, and Urban and Environmental Planning degree programs are similar, enabling students to transfer from one program to another.

Ownership of Student Work The School of Architecture reserves the right to retain student course work for exhibition and publication with appropriate credits. Teachers who wish to retain student work for their own purposes must gain student consent and provide adequate documentation of the work for the student.

Academic Regulations

Course Load Special permission of the dean's office is required to register for fewer than 12 credits or more than 19 credits each semester.

Incompletes IN represents incomplete and indicates the grade is being withheld until additional work is performed and approved. The deadline for resolution of IN grades is the first Friday in January for courses taken in the fall semester, and the last Friday in May for courses taken in the spring semester. Grades that remain IN after those times will be administratively changed to F.

Credit/No Credit Grades Students have the option of receiving a CR (credit) or NC

(no credit) in place of the regular grades, A through F, for a given course. This option is selected when students register for courses. Instructors may deny students permission to take courses on a CR/NC basis. If this occurs, students may either change back to the regular grading option, or they may drop the courses entirely. Courses taken for CR/NC may not be used for any major or basic area requirements.

Only one three-credit course of open elective credit may be taken each semester on a CR/NC basis.

Class Standing Students are categorized by class according to the number of credits they have earned as follows: 1st year: 0-29 credits; 2nd year: 30-59 credits; 3rd year: 60-89 credits; 4th year: 90 or more credits. AP and transfer credits are included in the computation of class standing; credits not completed or completed unsuccessfully are not. Students in the design concentration are classified according to their studio level.

Academic Performance, Probation, and Suspension

Academic Performance Student performance in the Department of Architecture's professional subjects is reviewed by the faculty at the end of every term. Students are expected to achieve at least a C- in ARCH 201, 202, 301, 302, 303, 304, 324, and 401. Grades of D or F in any of these professional courses results in repeating the course. A grade of C in a studio course is grounds for reconsideration of continuing in the studio sequence. If, in the judgement of the faculty, a student has not achieved an appropriate standard of performance in a professional subject, he or she may be required to repeat one or both terms of the course before proceeding with the next level of work in this subject. There is an approved student grievance procedure relative to grades.

Participation in formal juries is an integral part of a student's training in architecture. There are few tenable reasons for missing a jury, and the professor must be notified of the reason for an absence. An unexcused absence from a jury is deemed by some faculty as grounds for failure.

Students majoring in Urban and Environmental Planning or Architectural History must pass their required departmental courses with a minimum grade of C-.

Probation Students are placed on probation if they do not pass at least 12 credits of work in any semester following the first semester, or if their cumulative GPA falls below 2.0 after the completion of the first semester. Enrollment in advanced professional course work is allowed only for students with GPAs of 2.0 or better. A third probation, or probation following suspension, results in a final suspension.

Suspension Students are suspended if they do not pass at least ten credits of work in any semester following their first semester. Students who have been suspended once may appeal to the school's faculty for readmission. However, this appeal will be considered only after the student has passed a minimum of six credits in this University's summer session with a grade of at least C in each course. In addition, these courses must be approved by the dean of the School of Architecture. Courses taken in the School of Continuing and Professional Studies or any other institution are not accepted for degree credit or as a basis for application for readmission. *No student suspended a second time will be readmitted.*

Facilities

Campbell Hall, the School of Architecture building, was completed in 1970 and is part of a complex of buildings forming a Fine Arts Center that also includes the Department of Art, the Department of Drama, and the Fiske Kimball Fine Arts Library. Campbell Hall provides well-equipped studio work areas, exhibition areas, lecture halls, and seminar rooms. The school has two computer-graphics and computer-aided design laboratories with high resolution graphics. These facilities support software applications in computer-aided design, GIS digital mapping and modeling, site analysis, image processing, rendering, animation, structural analysis, lighting analysis, energy analysis, statistics, word processing, spreadsheet, and other areas. They also contain UNIX, Macintosh, and IBM computers with Internet access, and maintain digital voice and video links with other research laboratories in the United States and Europe. The design studio space has network connections for individual computers. Other research support facilities include mechanical and structural laboratories, a woodworking shop, and a photography darkroom.

The Fiske Kimball Fine Arts Library, a branch of the University Library system, is part of the School of Architecture. The collections, consisting of 140,000 volumes, 195,000 slides, and various technical reports, cover all subjects related to architecture, landscape architecture, architectural history, planning, and the visual and performing arts. The Fine Arts Library provides access to all other University Library resources, including extensive collections of government documents, maps, video recordings, rare books, manuscripts, and hundreds of online databases, as well as a gateway to the Internet. Special emphasis is placed on teaching students and faculty to conduct research utilizing online resources. Reference services are provided to the entire University community and to the arts and architecture practitioners throughout the Commonwealth.

Awards and Honors

Dean's List To be eligible for the Dean's List of Distinguished Students at the end of each semester, students must take a minimum of 15 credits and achieve a grade point average of 3.4 or higher without failure in any course. Courses taken on a CR/NC basis may not be counted toward the 15-credit minimum. Any student receiving an F, NC, IN or NG during the semester is not eligible to be on the dean's list.

Intermediate Honors Students who enter the University directly from high school or preparatory school and who, after four regular semesters, have completed 56 credits of course work with a minimum cumulative GPA of 3.4, are awarded a Certificate of Intermediate Honors; the notation "intermediate honors" is placed on the student's official academic record. Beginning with the entering class of 2001, Intermediate Honors will be awarded to students who enter the University directly from high school and who, after four regular semesters, have completed at least 60 credits of course work and are in the top twenty percent of their class. The computation is based upon the cumulative grade point average at the end of the fourth semester.

Theses and Commencement Honors

Students who have demonstrated high academic achievement in pursuit of the bachelor's degree are eligible for commencement honors.

Diplomas inscribed "with honors" are awarded to graduates who have earned a cumulative grade point average of at least 3.6.

Diplomas inscribed "with high honors" are awarded to graduates who have earned a cumulative grade point average of at least 3.75.

Diplomas inscribed "with highest honors" are awarded to graduates who have earned a cumulative grade point average of at least 3.90.

A thesis is required of all students completing a concentration in architectural studies, whether or not the students qualify for honors.

Graduate Programs

The School of Architecture offers graduate programs leading to the degrees of Master of Architecture, Master of Landscape Architecture, Master of Architectural History, and Master of Urban and Environmental Planning.

A separate graduate catalog describing each of these programs is available from the Admission Office of the School of Architecture. A Ph.D. in Architectural History is administered through the Graduate School of Arts and Sciences.

Departmental Curricula Undergraduate Program

Architecture

Undergraduate Degrees offered:

Bachelor of Science in Architecture

Pre-Professional Concentration

Studies Concentration

Multi-Disciplinary Concentration

Admission

The Bachelor of Architecture Program attracts a diverse range of students with a wide range of interests that are bound together by an overriding desire to consider and construct environments of enduring value.

Transfer students are accepted into the Department each fall up through the beginning of third year. Students wishing to transfer into the University's Department of Architecture should refer to www.virginia.edu/~admiss/ugadmiss/home.shtml. Those students already a member of the University and wishing to apply for transfer should refer to the Student Handbook at <http://www.virginia.edu/~arch/>.

Curriculum Years 1-3

The prime objective of the curricular core of the first three years is to provide a framework for the study of contemporary culture through observation, analysis, and considered design of our ongoing constructed occupation of the earth. This exploration uses design as a mode of critical inquiry from the scale of the city to the scale of the hand while maintaining its focus on the value of this effort to the community and the land, both immediate and extended. To make this evaluation possible, the curriculum is based on the foundation of a liberal arts education formed broadly during the first two years of study while subjects directly related to making architecture are pursued in the third year.

Students entering the Department of Architecture follow one curriculum for their first three years. Starting in their second year, the strategic choices of electives will prepare the student to pursue the concentration of their choice.

1st Year

Fall Semester

ARCH 101	Architecture as a Covenant ...3
AR H 101	History of Architecture: Ancient to Renaissance3
ENWR 110	Academic Writing ⁽⁶⁾3
	HUM/SCI Elective ⁽¹⁾⁽⁷⁾3
	Open elective ⁽⁴⁾⁽⁵⁾3
	15

Spring Semester

ARCH 102	Fundamentals of Design3
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AR H 102	History of Architecture: Renaissance to Modern	3
ENLT	English Elective	3
MATH 121	Applied Calculus ⁽²⁾	3
	HUM/SCI Elective ⁽¹⁾⁽⁷⁾	3
		15

2nd Year**Fall Semester**

ARCH 201	Intro. to Arch. Design ⁽⁸⁾	4
L AR 512	History of Landscape Arch. ⁽⁹⁾	3
PHYS 203A	Arch. Physics	4
	HUM/SCI Elective ⁽¹⁾⁽⁷⁾	3
	SOC SCI Elective	3
		17

Spring Semester

ARCH 202	Intro. to Arch. Design ⁽⁸⁾	6
	Prerequisite: ARCH 201	
AR H	Arch. History Elective	3
	Natural SCI Elective	3
	SOC SCI Elective	3
		15

3rd Year**Fall Semester**

ARCH 301	Architectural Design ⁽⁸⁾	6
	Prerequisite: ARCH 202	
ARCH 303	Building I ⁽⁸⁾	4
ARCH 308	Architectural Theory and Ethics	3
	Open Elective ⁽⁴⁾⁽⁵⁾	3
		16

Spring Semester

ARCH 302	Architectural Design ⁽⁸⁾	6
	Prerequisite: ARCH 301	
ARCH 324	Intro. to Structural Design ⁽⁸⁾	4
	HUM/SCI Elective ⁽¹⁾⁽⁷⁾	3
	Open Elective ⁽⁴⁾⁽⁵⁾	3
		16

Year 4**Election of Concentration**

At the end of the spring semester of the third year, each student will elect a course of study for the fourth year from the following list. The choices are designed to maximize the opportunities for undergraduate study given the wide range and scope of student interests and potential career paths.

4th Year: Pre-Professional Concentration

This Concentration is for students intent on pursuing a career as a practicing Architect. The curriculum is designed to maximize the opportunities to explore through design complex issues and conditions as well as representing intentions in material form.

Fall Semester

ARCH 401	Architectural Design ⁽⁸⁾	6
	Prerequisite: ARCH 302	
ARCH ____	Architecture elective ⁽³⁾	3
ARCH ____	Architecture elective ⁽³⁾	3
	Open elective ⁽⁴⁾⁽⁵⁾	3
		15

Spring Semester

ARCH 402	Architectural Design	6
	Prerequisite: ARCH 401	
ARCH 406	Building II	4
	Architecture elective ⁽³⁾	3
	Open elective ⁽⁴⁾⁽⁵⁾	3
		16
Degree Total	35	125

4th Year: Architectural Studies Concentration:

This Concentration is designed for students interested in expanding the scope of their study to include the related design fields of landscape architecture or urban planning. This option also allows students interested in the relationship between the practice of architectural design and research into architectural history or technical issues related to building and the environment to pursue these interests. Minors offered within the School of Architecture are the primary vehicle used to complete the degree requirements.

Fall Semester

	Minor Requirement	3
	Minor Requirement	3
ARCH	Architecture Elective Minor Related ⁽³⁾	3
ARCH	Architecture Elective ⁽³⁾	3
	Open Elective ⁽⁴⁾⁽⁵⁾	3
		15

Spring Semester

	Minor Requirement - Minor Related	3
	Minor Requirement	3
ARCH	Architecture Elective ⁽³⁾	3
	Open elective ⁽³⁾	3
	Open elective ⁽⁴⁾⁽⁵⁾	3
		15
Degree Total	37	124

4th Year: Multi-Disciplinary Concentration

This Concentration is for those students interested in exploring the connection between architecture and another discipline. This discipline can be something as close to architecture as art or engineering, or it could also be a more distant field, such as business, archeology, or materials science. It is the student's responsibility to make the case for the connection. Fulfilling the requirements for a minor in the related field is the primary vehicle used to complete the degree requirements.

Fall Semester

	Minor Requirement	3
	Minor Requirement	3
ARCH	Architecture Elective - Minor Related ⁽³⁾	3
ARCH	Architecture Elective ⁽³⁾	3
	Open Elective ⁽⁴⁾⁽⁵⁾	3
		15

Spring Semester

	Minor Requirement - Minor Related	3
	Minor Requirement	3
ARCH	Architecture Elective ⁽³⁾	3
ARCH	Open Elective ⁽³⁾	3
	Open Elective ⁽⁴⁾⁽⁵⁾	3
		15
Degree Total	37	124

Notes:

A minimum grade point average of 2.0 is required.

- HUM or SCI Elective: SCI "Science" electives include Natural Sciences, Mathematics, Engineering, and Computer Science.
- Students scoring above 600 on the math SAT are encouraged to take MATH 131. Students who have not completed a trigonometry course prior to matriculation, or who scored below 550 on the math SAT, are required to take MATH 103 Pre-Calculus in lieu of an Open Elective in the first semester.
- ARCH Elective: Any course designated with one of the following prefixes: ARCH, AR H, LAR, PLAC, PLAN, or PRES. ARCH Elective - Minor Related: An ARCH Elective that is directly related to the Minor Study Area.
- PHYE "Physical Education" credits do not count toward degree totals. One Open Elective per semester may be taken Credit/No Credit. A Maximum of 8 hours of degree credit will be granted for Ensemble Music or Dance. A maximum of 12 hours of degree credit will be granted for AIRS, MISC, & NASC courses.
- It may be necessary to use Open Electives to complete the requirements of a Minor.
- See separate English Advising notes.
- ARCH Elective courses do not count towards Humanities or Sciences electives.
- A student must receive a grade of at least a C- to pass this course.
- L AR 513 may be taken in place of L AR 512.

Note Students who wish to obtain the Master of Architecture professional degree apply to a graduate program. Students expecting to enter graduate studies should have maintained a 3.0 cumulative average, with a 3.5 average in the architectural design sequence. Admission into the graduate program in architecture at the University of Virginia is extremely competitive.

Minors offered:**Minor In Architecture**

The Minor in Architecture is offered to all students at the University. Students who complete the Minor range from those whose major is in a related field and who wish to expand the boundaries of that

endeavor, to those considering graduate study in architecture.

ARCH 101	Architecture as a Covenant ...	3
ARCH 102	Fundamentals of Design	3
ARCH	Architecture Department	
	Elective	3
	<i>Prerequisite:</i> ARCH 101	
ARCH	Architecture Department	
	Elective	3
	<i>Prerequisite:</i> ARCH 101	
	Elective within the School	
	of Architecture	3
		15

Urban and Environmental Planning

The Program in Urban and Environmental Planning balances professional planning skills with a liberal education emphasizing interdisciplinary study. Students typically take courses in the social and natural sciences, the humanities, and in design fields that complement professional courses in planning practice and theory. Graduates either begin work in the public or private sectors or go on to graduate professional studies.

The scope of the planner's work encompasses present and future urban and environmental concerns, including such diverse issues as environmental impact, quality of life, and the public and private costs of development. Planners work in the public and private sectors in urban and rural areas. Public sector planners work for all levels of government, formulating plans to redevelop or rehabilitate downtowns and neighborhoods, develop land aesthetically and profitably, and regulate private development to protect public interests. Although planners frame long-range designs, anticipating futures 5 to 15 years away, they are also deeply involved in choosing among current projects. Private sector planners employed with land developers, utilities, banks, property management firms, industries, and other major corporations do similar work according to the particular concerns of each business. Many of these concerns are integrated with the department's focus on sustainable community development.

Students may enter the program directly from high school, or they may transfer from another University school or other accredited universities or colleges. Usually, students transfer in their first or second year and complete the degree requirements without additional sessions. Although the first two years conform closely to the Arts and Sciences core curriculum, students who wish to transfer to the program should consult with the director of undergraduate studies. Students may apply for transfer for the spring or fall semesters. If other prerequisites have been met, it is possible

for transfer students to complete the required planning courses in two years.

Bachelor of Urban and Environmental Planning⁽¹⁾

1st Year

First Semester

	English ⁽²⁾	3
ARCH 101 ⁽³⁾	Architecture as a Covenant ...	3
	Math/Science ⁽⁴⁾	3-4
	Social Science elective ⁽⁵⁾	3
PLAN 103	Introduction to Planning	3
		15-16

Second Semester

	English ⁽²⁾	3
AR H 100	History of Arch ⁽³⁾	3
	Math/Science ⁽⁴⁾	3-4
	Social Science elective ⁽⁵⁾	3
	Humanities	3
		15-16

2nd Year

First Semester

PLAN 201	Planning Design or	
ARCH 201	Intro. to Arch. Design	4
	Math/Science	3-4
ECON 201	Microeconomics	3
	Humanities elective	3
PLAN 211	Info. Tech. in Planning or	
CS ____	CS computer course	3
		16-17

Second Semester

PLAN 202	Planning Design	4
	Math/Science	3-4
ECON 202	Macroeconomics	3
	Statistics	3
	Open elective	3
		16-17

3rd Year

First Semester

PLAN 303	Neighborhoods,	
	Communities and Regions	3
PLAN 306	Land, Law and Environ.	3
	Social Science elective ⁽⁵⁾	3
	Open Electives (non-Western	
	studies included)	6
		15

Second Semester

PLAN 305	Measuring Communities	3
	Professional elective ⁽⁷⁾	3
	Social Science elective ⁽⁵⁾	3
	Open Elective	3
	Open Elective	3
		15

4th Year

First Semester

	Professional elective ⁽⁷⁾	3
	Professional elective ⁽⁷⁾	3
PLAC ____	Planning app. course ⁽⁶⁾	3
	Social Science elective ⁽⁵⁾	3
	Open elective	3
		15

Second Semester

PLAN 404	Planning in Government	3
PLAC 401	Community Planning ⁽⁶⁾	3
	Social Science elective ⁽⁵⁾	3

PLAN	PLAN Elective or	
	Fourth Year Project	3
	Open elective	3
		15

- (1) Students must have a minimum of 122 credits with at least a 2.0 average in order to graduate with a Bachelor of Urban and Environmental Planning degree.
- (2) Proficiency at ENWR 110 level plus a second writing requirement.
- (3) Select two from among ARCH 101, ARCH 102 (ARCH 102 is taken only after ARCH 101), AR H 100, or AR H 101.
- (4) Environmental science and math are encouraged.
- (5) Six credits in GFAP are required.
- (6) Planning applications courses are designated as PLAC. They emphasize field work, analysis, plan development, document preparation, and formal presentation. PLAC 401 is designed for planning undergraduates seeking a culminating workshop.
- (7) A Professional Elective can be taken in a professional school, at the 300-level or above, with advisor's permission.

Architectural History

The undergraduate curriculum provides an introduction to the discipline of architectural history within a liberal arts program. A minimum of 33 credits in architectural history is required for the major. These include AR H 490 and an independent study course undertaken during the fourth year, which allows students to research and write an advanced paper on a topic of their choice while working closely with a faculty member. This paper, with faculty comments, becomes part of the student's permanent record. Students must also complete the first year of architectural design courses (ARCH 201-202). Appropriate preservation and art history courses may be used to fulfill architectural history requirements after consultation with academic advisor.

Bachelor of Architectural History⁽¹⁾

1st Year

Fall Semester

AR H 101	History of Architecture:	
	Ancient to Renaissance	3
ENWR 110	Accelerated Academic	
	Writing	3
MATH 121	Applied Calculus I or	
	Approved substitute ⁽²⁾	3
	Foreign Language ⁽³⁾	3-4
	Elective (ARCH 101	
	recommended)	3
		15-16

Spring Semester

AR H 102	History of Architecture:	
	Renaissance to Modern	3
	Foreign Language ⁽³⁾	3-4
	English elective	3

Elective (ARCH 102 recommended).....	3
Open elective ⁽⁴⁾	<u>3</u>
	15-16

2nd Year**Fall Semester**

ARCH 201 Intro to Arch. Design.....	4
History of Arch. elective ⁽⁵⁾	3
Foreign Language ⁽³⁾	3-4
Natural Science elective.....	3-4
Social Science elective	<u>3</u>
	16-18

Spring Semester

ARCH 202 Intro. to Arch. Design.....	4
Foreign Language ⁽³⁾	3-4
Natural Science elective.....	3-4
Social Science elective	3
History of Arch. elective ⁽⁵⁾	<u>3</u>
	16-18

3rd Year**Fall Semester**

History of Arch. electives ⁽⁵⁾	6
English elective	3
History elective.....	3
Open elective ⁽⁴⁾	<u>3</u>
	15

Spring Semester

History of Arch. elective ⁽⁵⁾	3
English elective	3
History elective.....	3
Open elective.....	3-4
Open elective ⁽⁴⁾	<u>3</u>
	15-16

4th Year**Fall Semester**

History of Arch. Electives ⁽⁵⁾	6
Open electives ⁽⁴⁾	<u>9</u>
	15

Spring Semester

AR H 490 Major Special Study.....	3
History of Arch. elective ⁽⁵⁾	3
Open electives ⁽⁴⁾	<u>9</u>
	15

- (1) Students must have a minimum of 122 credits with at least 2.0 average in order to graduate with a Bachelor of Architectural History degree.
- (2) If ENWR 110 or MATH is waived, any open elective may be substituted.
- (3) Students must attain, at a minimum, an intermediate level in one foreign language, usually by completing 12 credits of foreign language study through the 202 level. Any remaining course slots may be used for additional languages or as open electives. Those with previous language study may contact the appropriate department for placement in advanced level courses (i.e., to begin study at the University with a 200- rather than a 100-level language course). Students scoring at least 620 on a CEEB language achievement examination have satisfied this

requirement. Those intending to continue in the field of architectural history are advised to study a second language.

- (4) Students should take advantage of courses in preservation and building technology when they are available.
- (5) Related art history courses offered by the McIntire Department of Art and related courses in the history of landscape architecture may be taken for architectural history credit with advisor permission.

Course Descriptions

With faculty approval, upper-level undergraduate students may be allowed to enroll in graduate courses and offer them for elective credit. These courses are described in the *Graduate Record* and are offered through all four departments.

Although ARCH, AR H, L AR, and PLAN are preprofessional and professional courses, not all are restricted to School of Architecture students. If students outside the school wish to enroll in one of these courses, they should secure the approval of the faculty member offering that course. Even in professionally-oriented courses, some faculty members encourage and welcome such participation.

Architecture**ARCH 101 - (3) (Y)****Architecture as a Covenant**

The study of architecture as a speculation on origins is located at the conjunctive core of any liberal arts curriculum and serves as the physical armature and conceptual foundation of the University. This course is concerned with the contemporary imagination, attempting to make the discipline of architecture meaningful to a wide range of citizens in its public obligation to be constructive and optimistic in the most profoundly ethical, pragmatic, and magical of terms.

ARCH 102 - (3) (Y)**Fundamentals of Design**

Introduces the aspects of design considered fundamental to an understanding and interpretation of architecture and the visual arts. Introduces drawing and presentation skills, and develops the precision and facility necessary for visual communication.

ARCH 201, 202 - (4) (6) (Y)**Introduction to Architectural Design**

Explores the humanistic determinants of form; architecture as both experience and formal proposition; analysis and synthesis in the design process; and the communication of design intentions.

PHYS 203A - (4) (Y)**Architectural Physics**

Introductory physics stressing the applications of physics to the architecture of build-

ings and building services (heating, cooling, lighting, and maintenance). Prior knowledge of differential and integral calculus is helpful but not required. Problems and numerical examples are treated in the discussion section.

ARCH 301, 302 - (6) (Y)**Architectural Design**

Prerequisite: ARCH 201, 202

Analyzes architectural design conceptualization and synthesis; the relationship of building, site, and basic technology as determinants in architectural form; and the integration of various disciplines and concerns in the design of a complete building.

ARCH 303 - (4) (Y)**Building I**

Introduces the technology involved in the design and construction of buildings, emphasizing the nature of materials and their practical assembly. A parallel intention to ARCH 301 and 302, it presents a vocabulary that interrelates history, theory, and technology.

ARCH 308 - (3) (Y)**Architectural Theory and Ethics**

Architectural theory acts as a critical discourse parallel to practice—as its conscience and provocation. Buildings, landscapes, and manifestos by architects are scrutinized for significant, recurring themes using methods from aesthetics, philosophy, and criticism. This course relies upon reading, writing, and argument to develop an analytic approach that bridges the gap between architectural knowledge and other forms of knowledge.

ARCH 324 - (4) (Y)**Introduction to Structural Design**

Prerequisite: PHYS 203A or approved equivalent college-level physics.

A first course in structures for undergraduates to develop analytic and critical skills through both mathematical and visual investigation. Topics include statics, mechanics of materials, computer-based structural analysis, and the design and behavior of basic structural elements and systems.

ARCH 401, 402 - (6) (Y)**Architectural Design**

Prerequisite: ARCH 301, 302

Explores architectural design problems of complex programs and intermediate scale, emphasizing circulation, formal intent, and specialized technology in both historic and contemporary urban contexts.

ARCH 406 - (4) (Y)**Building II**

Explores the relationship between the technology of contemporary construction and the social, political, and economic forces that form the context of architectural practice. Examines the ethical responsibilities of the architect with respect to the unique tools and knowledge of the discipline.

ARCH 485 - (3) (Y)**Teaching Experience**

Selected students lead a seminar (of 8 to 10 younger students each) for "Covenant" and "Fundamentals." All student assistants attend class lectures (for a second time) and then meet with their seminar groups weekly, leading discussions of topics and questions raised by the instructor.

ARCH 500 - (3) (Y)**Vicenza Program**

Summer study abroad in Vicenza, Italy. Students will be introduced to Italian culture through the study of architecture, landscape architecture, and city planning. Both the formal ideals as well as the constructed reality of these three subjects will be studied through critical observation and documentation of universal conditions and critical junctures.

ARCH 505 - (2) (SS)**Architectural Graphics**

Descriptive geometry, perspective, and presentation techniques used in architecture. Required for Path A graduate students.

ARCH 509 - (2) (Y)**Figure Drawing**

Hones the faculty of seeing and the skill of drawing through drawing the human figure.

ARCH 511 - (3) (Y)**Design Approaches to Existing Sites**

Explores various approaches by designers to the contexts of their work. Examines buildings, urban infrastructure, and landscape interventions, and includes lectures, discussions, and presentations by visitors and students.

ARCH 515 - (3) (Y)**Technology, Materials, and Conservation of Traditional Buildings**

Studies the principles of inspection, diagnosis, and treatment of older buildings from an engineering perspective. Emphasizes materials and the structural behavior of masonry, concrete, wood, and metals. Lectures and field work.

ARCH 516 - (4) (Y)**Preservation of Jeffersonian Architecture**

Examines the Jeffersonian buildings on Grounds within the restoration program now underway in the Academical Village. Provides a hands-on study of the buildings and their care, which examines the buildings within the context of their own historical origins and life span, then broadens that literary and cultural understanding with intensive site investigation, otherwise known as building archaeology. Explores alternative solutions to problems and changes in the buildings.

ARCH 522 - (3) (Y)**Victorian Technology**

Surveys the dramatic changes in building, transportation, and communications tech-

nology that occurred in America between 1870 and 1920. Developments such as steel, reinforced concrete, electricity, and telephones directly affected building design and construction.

ARCH 523 - (3) (Y)**Materials and Assembly**

A seminar in which the properties of basic building materials are evaluated and assemblies of critical junctures are proposed and critiqued.

ARCH 524 - (4) (Y)**Introduction to Structural Design**

Prerequisite: PHYS 203A or approved equivalent college-level physics.

A first course in structures for undergraduate and graduate students with degrees in other disciplines. Develops analytic and critical skills through both mathematical and visual investigation of structures. Topics include statics, mechanics of materials, computer-based structural analysis, and the design and behavior of basic structural elements and systems.

ARCH 525 - (4) (Y)**Environmental Control Systems and Lighting**

Study of fundamental principles applied to the design of thermal and luminous environments, as well as plumbing/drainage and electrical systems. A studio project is selected for additional analysis and design development focusing on the energy-conscious building envelope, mechanical systems selection, natural and artificial lighting schemes, and the building services layout.

ARCH 527 - (3) (Y)**Energy Systems**

An investigation and comparative analysis of energy consumption patterns before and after energy conserving retrofits were implemented in existing buildings. Explores current and future development trends in energy conservation technologies, emphasizing passive solar analysis and design methodology. This study is followed by an application of issues onto a studio problem.

ARCH 528 - (3) (Y)**Lighting Design**

Development of knowledge and skills in lighting design through the study of exemplary buildings, design exercises, case studies and analyses of lighting conditions. Considers quantitative and qualitative lighting design issues and their synthesis through design.

ARCH 534 - (3) (Y)**Construction Practice Management**

Provides future architects, engineers, lawyers, and developers with an overall understanding of the construction process for commercial, industrial, and institutional projects. Follows the history of a typical project from selection of architect to final completion of construction. Topics include design cost control, cost estimating, bidding procedures, bonds

and insurance, contracts and sub-contracts, progress scheduling, fiscal controls, payment requests, submittals, change orders, inspections, overall project administration, and continuing architect-owner-contractor relationships. Lectures and related field trips.

ARCH 535 - (3) (Y)**Design Construction Drawing**

Immerses students in the process of producing construction drawings by asking them to organize and generate a complete set of drawings that embody and describe the design intent and construction of a given building. Students examine alternative construction techniques, develop details, and produce a set of construction drawings that would yield a well-built structure whose design intent is clear.

ARCH 538 - (3) (Y)**Construction and Modernism**

Discussion of the role of construction in design, focusing on industrialization and its impact on architecture in this century. Emphasizes the ideals and reality of mass production and the ways in which this has and does effect architectural form, both in a direct constructional way, and in a conceptual way.

ARCH 541/542 - (3) (Y)**Computer Aided Architectural Design**

Explores design worlds that are made accessible through computer-based media. Lectures provide a theoretical framework for computer-aided design, describes current methods, and speculates on advanced methods. Workshop exercises focus on computer based 3-D geometrical modeling, including photo-realistic and abstract methods of rendering, materials simulation, texture mapping, reflection mapping, image-processing, color-table manipulation, photo-montage, lighting, animation, and combined media applications.

ARCH 544 - (2) (SS)**Computer Graphics and Design Application**

Applies geometrical modeling to solving design problems using an array of solid modeling, geometrical modeling, rendering and image-processing tools.

ARCH 545 - (3) (Y)**Architectural Simulation**

Prerequisite: ARCH 541/542 or 544, or instructor permission

Explores the simulation of architecture, urban design, and environmental design through movie-making. Examines parallels between the treatment of motion in movies and the treatment of motion in design. These parallels include how film makers and designers treat the space-time continuum, 3-D depth, movement, lighting, and montage. Further examines movie-making as a medium for design exploration, architectural aesthetic expression, and critical analysis of design.

ARCH 548 - (3) (Y)**Computables of Architectural Design**

Explores the quantitative basis and geometrical order of forms occurring in nature and architecture. Covers instructions, exercises, and examples of coding in a programming language during the first two thirds of the term. Students develop a case study in design methods that extends a CAD system as the basis for a computational project in the last third of the term. Programming knowledge is not assumed; class pace is individually adapted for students with previous experience.

ARCH 554 - (3) (Y)**Architectural Analysis: Key Buildings of Modernism**

Investigates the link between ideas and forms of significant buildings in the canon of modern architecture.

ARCH 559 - (3) (Y)**City Design**

Introduces the issues of contemporary city design. Examines methods of analyzing urban form, large scale organizational concepts, aesthetic opportunities, and methods of implementation that may be used to shape the sensory qualities of our cities. Recognizing that social, economic, and environmental issues often determine city design, the course emphasizes the design opportunities inherent in these concerns. The intent is to understand what we have done in order to improve what we will do.

ARCH 563 - (2) (Y)**Design of Cities**

Cities are physical artifacts that are experienced psychologically and socially. This course investigates the theories surrounding these processes to reach an understanding of humanistic urban design intentions. Experiential realities are explored through case studies, readings, and mapping exercises.

ARCH 565/567 - (3) (Y)**Photography**

The photographic image is used as a means of discussing and exploring the relationship between ideas and representation. This exploration begins with an analysis and presentation of compositional and thematic issues in the work of significant photographs throughout history. Film and paper exposure, processing, and printing are discussed.

ARCH 568 - (3) (Y)**Contemporary Architectural Theory**

Readings and lectures covering 1966 to the present, and tracing the development of postmodernism, post-structuralism, and other current movements in architecture. Reference is made to other disciplines, the influence of criticism, the role of the media, and distinctions between theory, criticism, and style.

ARCH 578 - (0) (Y)**Programs Abroad Seminar**

Orientation for School of Architecture programs in England and Italy.

ARCH 581/582 - (3) (Y)**Architectural Crafts**

Applies design process and theory to the design and construction of furniture. Investigates jointing, finishing, and construction techniques. Experience with tools is not required.

Architectural History**AR H 100 - (3) (Y)****History of Architecture: Survey**

The history of Western architecture from ancient times to the present.

AR H 101 - (3) (Y)**History of Architecture: Ancient to Renaissance**

Traces the development of Western architecture from prehistoric times to the Renaissance.

AR H 102 - (3) (Y)**History of Architecture: Renaissance to Modern**

Prerequisite: AR H 100 or 101

The history of architecture and allied arts from 1500 to the present.

AR H 111 - (3) (SS)**History of Architecture I**

Surveys architecture from the prehistoric to the Renaissance.

AR H 112 - (3) (SS)**History of Architecture II**

Prerequisite: AR H 111

Surveys architecture from the Renaissance to the present.

AR H 150 - (3) (Y)**Thomas Jefferson's Architecture**

Surveys Jefferson's architectural world with special emphasis on the Lawn.

AR H 203 - (3) (Y)**History of Modern Architecture**

Surveys architecture and allied arts from c. 1800 to the present, emphasizing the development of the modern movement.

AR H 331/531 - (3) (O)**Later Medieval Architecture**

The architecture of Western Europe from c. 1140-1500.

AR H 333/533 - (3) (E)**Early Medieval Architecture**

The architecture of Western Europe from c. 800-1150.

AR H 341 - (3) (Y)**Italian Renaissance Architecture 15th Century**

Developments of classicism in Italy between 1400 and 1500.

AR H 342 - (3) (Y)**Renaissance Architecture 16th Century**

Developments in classicism in Italy between 1500 and 1600.

AR H 343 - (3) (Y)**European Classical Architecture Outside Italy, 1400-1750**

The development of classicism primarily in France, England, and Germany between 1400 and 1750.

AR H 351 - (3) (Y)**Early American Architecture**

American architecture from the first European contact to the death of Jefferson. Lectures and field trips.

ARCH 352 - (3) (IR)**Later American Architecture**

Surveys American architecture from 1800 to the present.

AR H 353 - (3) (Y)**Nineteenth-Century American Architecture**

American architecture from 1776 to 1914.

AR H 354 - (3) (Y)**Twentieth-Century American Architecture**

Surveys American architecture emphasizing the development of modernism.

AR H 361 - (3) (IR)**Nineteenth-Century European Architecture and Theory**

The development of architecture in nineteenth-century Europe, with particular attention to France, England and Germany.

AR H 381/581 - (3) (Y)**East-West Architecture**

Studies cultural exchanges in architecture between East and West, emphasizing master architects such as F.L. Wright and L. Kahn.

AR H 382/582 - (3) (Y)**East Asia Architecture**

Surveys traditional architecture in China, Japan, and Korea, focusing on the main features and monuments of East Asian and landscape architecture.

AR H 489 - (3) (SI)**Independent Studies in Architectural History**

Prerequisite: instructor approval and departmental approval of topic
Advanced work on independent research topics by individual students.

AR H 490 - (3) (S)**Major Special Study**

Special directed reading course for majors completing their independent study.

AR H 515 - (3) (Y)**Historical Archaeology**

Studies the theory, problems, and techniques of the archaeology of the American colonial past on the Atlantic seaboard. Field trips.

AR H 580 - (2-3) (IR)**Selected Topics in Architectural History**

Prerequisite: instructor permission
Special topics pursued in a colloquium.

AR H 585 - (3) (Y)**World Buddhist Architecture**

Studies the history of Buddhist architecture and allied arts in the Buddhist world, including East, South, and Southeast Asia. Lecture starts from the Indian stupas and ends in Japanese Zen gardens.

AR H 587 - (3) (O)**Modern Japanese Architecture**

The history of architecture in modern Japan from Meiji period to the present. Focuses on post-WW II development; discusses the major influential architects such as Tange, Kikutake, Maki, Isozaki, Kurokawa, and Ando.

AR H 589 - (3) (SI)**Independent Studies in Architectural History**

Prerequisite: Departmental approval of topic
Advanced work on independent research topics by individual students.

AR H 590 - (3) (Y)**Historic Preservation Theory and Practice**

Surveys the history of preservation, focusing on the changing nature of its ideals and practice. Preservation is discussed in the context of cultural history and the changing relationship between existing buildings and landscapes, and attitudes toward history, memory, and invented tradition.

AR H 592 - (3) (Y)**Community History Workshop**

An in-depth historical analysis of the architecture, urban form, and planning of a selected community. Focuses on the historical significance of the built landscape as an element in, and an expression of, the social and cultural life of the community.

AR H 594 - (3) (Y)**Community Public History Seminar**

Explores a variety of approaches to conveying the architectural and cultural history of a community to a diverse public constituency. Builds upon the analysis developed in AR H 592 (Community History Workshop). Analyzes the preservation implications of the work undertaken in collaboration with students in the preservation studio.

ARCH 512 - (3) (IR)**Architectural Surveys**

Identifies the location of early roadways in Albemarle County that provide clues to the documentation of the material culture or architectural pattern (e.g., plantation houses, barns and outbuildings, taverns, mills, churches, schools, stores, depots) associated with it through time.

ARCH 513 - (4) (Y)**Measured Drawings**

Prerequisite: ARCH 201/202 or 501/502
Analysis of graphic recording techniques as employed by the Historic American Buildings Survey along with archival research.

ARCH 515 - (3) (Y)**Technology, Materials, and Conservation of Traditional Buildings**

Studies the principles of inspection, diagnosis, and treatment of older buildings from an engineering perspective. Emphasizes materials and structural behavior of masonry, concrete, wood, and metals. Includes lectures and field work.

ARCH 516 - (4) (Y)**Preservation of Jeffersonian Architecture**

Examines the Jeffersonian buildings on the grounds within the restoration program now underway in the Academical Village. Provides a hands-on study of the buildings and their care, examining the buildings within the context of their own historical origins and life span and broadening that literary and cultural understanding with intensive site investigation, otherwise known as building archaeology. Where problems have arisen, or where changes in the buildings must be made, alternative solutions are explored.

ARCH 517 - (3) (Y)**Regional Architecture**

Examines regional Virginia architecture through slide lectures and field trips emphasizing stylistic and technical features. Serves as an overview of Virginia architecture while concentrating in detail on the Piedmont region.

ARCH 522 - (3) (Y)**Victorian Technology**

Survey of the dramatic changes in building, transportation, and communications technology that occurred in America between 1870 and 1920. Explores the development of steel, reinforced concrete, electricity, and telephones, which directly affected building design and construction.

Landscape Architecture**L AR 505 - (3) (E)****Historic Sites**

Studies of methods and techniques of identifying, measuring, documenting, and reporting historic sites, including field work on actual historic sites.

L AR 507 - (4) (Y)**Plants and Environment I**

Studies plant types and characteristics in natural and designed environments. Emphasizes field identification, ecological associations, and plant shape and form. Incorporates drawing exercises in the field.

L AR 508 - (4) (Y)**Plants and Environment II**

Prerequisite: L AR 507
Continued study of plant types and characteristics in natural and designed environments. Emphasizes field identification, ecological associations, and plant shape and form. Incorporates drawing exercises in the field.

L AR 510 - (3) (Y)**Advanced Landscape Drawing and Representation**

Explores ways of representing, analyzing and designing the landscape through a variety of media to include drawing, collage image processing, model making and digital modeling.

L AR 512 - (3) (Y)**History of Landscape Architecture**

Examines landscape architecture as an expression of cultural values. Lectures concentrate on a few prototypical examples, emphasizing ancient Egypt, 16th-century Italy, 17th-century France, 17th-century Japan, 18th-century Britain, 17th- and 20th-century America. Comparative case studies are complemented by primary and secondary source readings.

L AR 513 - (3) (Y)**History of American Landscape Architecture**

Prerequisite: LAR 512 or instructor permission. Studies the development of American landscape architecture from the 17th century to the present, emphasizing seminal figures—Jefferson, Downing, Olmsted, Platt, Farrand, Jensen, and selected contemporary designers.

L AR 514 - (3) (Y)**Introduction to Theories of Modern Landscape Architecture**

Prerequisite: L AR 512 or instructor permission. Examines modern built landscapes as cultural products with their own materials, codes, and concerns. Underscores landscape architecture theory's interlocking relationship with changing societal constructions of nature, environmentalism, and the city. Focuses on exemplary built works of landscape architecture and their impact on, and debt to, specific design treatises or manifestos in light of broader cultural and theoretical practices.

L AR 517 - (3) (Y)**Site Planning**

Introduces the language and principles of site design. Lectures, exercises, case studies, and field trips provide basic skills in reading the land and building the site, including siting principles, grading, and planting. A final design project.

L AR 520 - (3) (Y)**Seminar: Healing Landscapes**

Investigates various topics centered on the general theme of designed landscapes as a means of "healing" human beings. Such healing is understood in a broad sense to encompass both physical and mental infir-

mities. Includes a historical overview of various healing landscapes, an examination of healing practices in various cultures, and field trips to various hospitals, hospices, and out-patient facilities in the Charlottesville area.

L AR 521 - (3) (IR)

Topics in Contemporary Landscape Theory and Practice

Readings and discussion of the evolution of environmental art and land sculpture as it relates to landscape architecture.

L AR 523 - (3) (IR)

Historic Landscape Preservation

Readings and discussion of contemporary theory and practices for preserving historic landscapes. Evaluation of those theories and practices through a review of select case studies.

L AR 525 - (3) (Y)

Urban Topographies: The Constructed Landscape

Explores the constructed nature of the contemporary urban landscape from the starting point of the ground. A series of landscapes that exemplify the ambiguous quality of urban ground—as both floor and roof: “terra firma” and made land—will be investigated through lectures, readings, and discussions.

L AR 526 - (3) (Y)

D.I.R.T. Seminar: Doing Industrial Research Together

Includes field work/visits to a variety of industrial sites. Readings, lectures, and class discussions focus on the evolving definition and technologies of the post-industrial landscape.

L AR 531 - (4) (Y)

Construction I: Landform and Grading

Prerequisite: L AR 535

Part of a technical course sequence in landscape architecture that includes site design, layout plan, grading plan, and drainage calculations for a specific project. Focuses on the land as a shaped medium; applies concepts and principles of land manipulation, grading earthwork, and drainage in short exercises and a grading plan for a studio project.

L AR 535 - (4) (Y)

Applied Ecology

Studies the structure, function, and dynamics of natural systems in both built and unbuilt environments. Combines lectures, fieldwork, and case studies. Emphasizes applications of ecological concepts to landscape design through exercises using a local site.

Planning

PLAN 103 - (3) (Y)

Introduction to Community and Environmental Planning

Analyzes community and environmental

planning in the United States; the planning process; and sustainable communities.

PLAN 201, 202 - (4) (Y)

Planning Design

Studies the principles of design; the architecture of cities and urban design; perception of space and visual analysis; graphic presentation, including mapping techniques; and inventories, information storage, retrieval and use.

PLAN 211 - (3) (Y)

Information Technology in Planning and Architecture

Develops fundamental skills for using computers in planning and architecture. Lectures and workshops include computing fundamentals, Internet access, spreadsheet computation, image processing, document publication, database management, and introduction to geographic information systems.

PLAN 303 - (3) (Y)

Neighborhoods, Community and Regions

Explores theories and concepts of economic, social, and cultural forces that influence urban and regional spatial structure.

PLAN 305 - (3) (Y)

Measuring Community Structure and Change

Analyzes methods used in quantitative investigations of urban and regional settings for planning purposes. Topics include population forecasting, demographic, and housing, and economic analysis, urban activity models, and program and plan evaluation. The laboratory portion of the course requires computer skills.

PLAN 306 - (3) (Y)

Land, Law and the Environment

Introduces major legal issues surrounding land-use and development planning. Emphasizes developing application skills in terms of zoning, subdivision, and other land-use regulatory powers. (May be taken prior to fourth year.)

PLAN 311 - (3) (IR)

History of Cities and Planning

An overview of the planning profession with emphasis on 19th- and 20th-century American urban history.

PLAC 401 - (3) (Y)

Community Land Use Workshop

Explores the development of land-use plans, usually in conjunction with citizens, for a community undergoing change.

PLAN 404 - (3) (Y)

Planning in Government: Decisions and Alternatives

Examines the role of planning in government decision-making. Focuses on local government, but intergovernmental aspects of planning that influence local decisions are also stressed. Studies planning processes, such as

transportation, community development, and social planning.

PLAN 481, 483, 484 - (1-4) (SI)

Special Study

Elective courses of one credit offered at the request of faculty or students to provide an opportunity for internships, fieldwork, and independent study.

Note Third- and fourth-year undergraduate students may, with instructor permission, enroll in selected 500-level courses. A partial list follows:

PLAN 503 - (1) (Y)

Basic Graphics

Introduces basic graphic skills used in communicating and designing in planning situations.

PLAN 512 - (3) (Y)

Computers in Planning: GIS

Reviews the use of computers in planning, focusing on geographic information systems for collection, analysis, and display of spatial information in urban and environmental contexts.

PLAN 513 - (3) (IR)

Advanced GIS Workshop

Students apply GIS technology to examine significant issues of land, natural resources, and the characteristics of urban development.

PLAN 522 - (3) (IR)

Planning, Budgeting, and Finance

Evaluates the criteria for, and processes of, making budget choices. Examines questions about who should pay, who should benefit, who should participate, and who should decide, along with the consequences of these choices.

PLAN 524 - (3) (O)

Consensus Building, Negotiation and Mediation

Examines the processes by which consensus can be developed, focusing general negotiation theory and skill development, including the concept of principled negotiation; the conflict landscape, including government and non-government organizations; and negotiation resources and opportunities, including organizations, processes, and enabling legislation.

PLAN 529 - (3) (IR)

Special Topics in Policy Planning

Varies annually to fill graduate students' needs in the study of policy planning and analyses.

PLAN 530 - (3) (Y)

Preservation Planning

Studies current literature on the identification, evaluation, and treatment of historic places. Develops techniques for surveying, documenting, evaluating, and planning for preservation. Analyzes current political, economic, and legal issues in preservation planning.

PLAN 531 - (3) (IR)**Development and Design**

Provides an understanding of the analytical tools, design concepts, and economic principles that lead to financially- and aesthetically-optimal development. Emphasizes the integration of design and economic principles related to large-scale design and land development.

PLAN 534 - (3) (IR)**Urban Revitalization**

Explores the problems and potentials encountered in planning for older urban neighborhoods and downtowns. These may range from market decline and physical decay to intense private reinvestment and displacement. Includes neighborhood change processes, the role of private lending institutions, techniques for identifying economically sound housing and business opportunities in older neighborhoods, commercial and residential revitalization techniques, financing neighborhood improvement programs, and historic and architectural preservation as a component of urban revitalization.

PLAN 540 - (3) (Y)**Introduction to Housing and Community Development**

Provides an introduction to the housing and community development area of planning practice. Topics include the housing and development industries, housing production and distribution systems, housing demand and supply, housing market dynamics, neighborhood change processes, housing and real estate finance, social aspects of housing and development, and housing and development programs and policy issues.

PLAN 542 - (3) (IR)**Economic Development**

Explores the economy of a community or region as an essential element, along with environment and equity, in livability and sustainability. Planners engage economic development by working with the community to assess needs and opportunities, through public-private business partnerships, and in development review.

PLAN 543 - (3) (E)**Land Development Workshop**

Explores the land development process from the perspective of the private land developer interacting with local governments. Includes development potential, site, and traffic analysis; land planning; development programming; and services to accommodate new development and public regulation of land development.

PLAN 544 - (3) (O)**Neighborhood Planning**

As the "building blocks" of cities, neighborhood plans involve citizens in addressing issues of housing, jobs, public services, education, recreation, and transportation.

PLAN 547 - (3) (E)**Development Dynamics**

Examines the roles of developers, investors, designers, planners, and others, identifying the objectives each have in the development decision process. Discusses the interplay and communications of what constitutes sound economics and good design.

PLAN 549 - (3) (IR)**Special Topics in Housing and Community Development**

Varies annually to meet the needs of graduate students in the study of housing and community development.

PLAN 550 - (3) (IR)**Natural Systems and Environmental Planning**

Integrates knowledge of natural systems into local planning processes. Emphasizes how natural systems function, the impacts that urban and land development have on their integrity, and community-wide approaches to planning for and managing urban development to reduce or mitigate those impacts.

PLAN 551 - (3) (Y)**Sustainable Communities**

Examines sustainable communities and the environmental, social, economic, political, and design standards that underlie them. Focuses on reviewing actual case studies of cities, towns, and development projects that reflect principles of sustainability.

PLAN 552 - (3) (IR)**Sustainable Planning & Design Workshop**

Students act as a consultant team to develop sustainable planning and design strategies for sites which rotate each year.

PLAN 553 - (3) (Y)**Environmental Policy and Planning**

Examines contemporary environmental policy and practice, including exploration of the normative-philosophical debate surrounding environmental issues. Emphasizes understanding the political and institutional framework for establishing policy and programs; exploring the action approaches to environmental planning including moral suasion, regulation, public investment, and public incentives; and case studies of environmental planning at the federal, state, and local levels.

PLAN 554 - (3) (E)**Environmental Ethics and Sustainability**

Detailed exploration of the normative debate surrounding environmental issues. Focus on the foundations of environmental economics, questions about the value of endangered species, concerns of future generations, appropriateness of a sustainable society, notions of stewardship, and obligations toward equity.

PLAN 555 - (3) (IR)**Environmental Impact Assessment**

Explores environmental assessment processes and methods from both a theoretical and an applied perspective. Reviews the philosophy and statutory base of the assessment process. Emphasizes the integration of that process with broader jurisdictional planning processes.

PLAN 557 - (3) (IR)**Environmental Planning and Community Design**

An applied course exploring the processes of community planning and design while incorporating considerations of the natural environment. An analysis of environmental resources and constraints predicates the design of development policies and projects for a specific local community.

PLAN 558 - (3) (O)**Coastal Planning Workshop**

Explores the special characteristics of coastal and island settings for their planning significance. Addresses natural hazard mitigation, wetlands, and biodiversity.

PLAN 559 - (3) (IR)**Special Topics in Environmental Planning**

Varies annually to meet the needs of graduate students studying environmental planning.

PLAN 560 - (3) (Y)**Land Use Policy and Planning**

Introduces the theory and practice of land use planning as it has evolved historically and as it is expressed in contemporary practice. Addresses the need and rationale for land use planning as well as its tools.

PLAN 561 - (3) (Y)**Community Planning Workshop**

Land-use plans are developed, usually in conjunction with citizens, for a community undergoing change.

PLAN 562 - (3) (O)**Comprehensive Planning Process**

Explores the comprehensive planning process by developing a plan for a local jurisdiction that serves as the course's client for the semester.

PLAN 563 - (2) (Y)**Design of Cities**

Cities are physical artifacts that are experienced psychologically and socially. This course investigates the theories surrounding these processes to reach an understanding of humanistic urban design intentions. Experiential realities are explored through case studies, readings, and mapping exercises. Cross-listed as ARCH 563.

PLAN 565 - (3) (E)**Growth Management**

Examines issues related to recent attempts to regulate the rate and location of development activity. Compares land use, fiscal, economic, social, environmental, political,

and legal considerations in growth management strategies to the alternative of non-managed growth. Efforts at economic development are treated as one type of growth management. Discusses case studies and the growing body of literature on growth management techniques employed in a number of jurisdictions.

PLAN 568 - (3) (IR)

Strategic Development Planning

Development planning addresses the relationships between land uses and the local government's role in achieving public—including social—purposes in physical terms. Strategic planning usually involves determining a jurisdiction's highest priorities and designing policies and programs to achieve them within the context of political conflict and competition among local jurisdictions.

PLAN 569 - (3) (IR)

Special Topics in Land Use Planning

Varies from year to year to fill graduate students' needs in the study of land use planning.

PLAN 571 - (3) (IR)

Landscape Preservation

Examines the legal and practical issues involved in the conservation of rural landscapes, including the settings of historic

structures. Reviews the justification for landscape preservation and the planning strategies that can be employed to preserve landscapes, including land use regulations, tax incentives, and conservation easements. Case studies of successful landscape preservation programs are presented and discussed.

PLAN 572 - (3) (Y)

Transportation and Land Use

Reviews basic relationships between land use and transportation. Considers the decision process, planning principles, impact measures, and the methodological framework for identifying and evaluating courses in action on a regional, local, and neighborhood scale. Projects and scale change from year to year.

PLAN 575 - (3) (IR)

Community Facilities Planning

Focuses on the detailed development of plans for functions provided by local government jurisdictions including schools, public safety, water, and sewer. Includes case studies of plans in order to develop a comprehensive capital improvement program for the locale.

PLAN 577 - (3) (E)

Plan Implementation

Emphasizes the use of zoning, subdivision, and other regulations to implement comprehensive plans. Attention is given to capital facilities programming and building codes.