

FAQ's

ARCHITECTURAL DESIGN MAJOR

School of Engineering/ Stanford University
Dept. of Civil and Environmental Engineering

Is the Architectural Design degree accredited?

No. However, our program prepares you for graduate studies in architecture, and due to its practical mix of engineering, math, and science it is also a good basis for a number of professional disciplines as well as architecture.

If I am not particularly interested in advanced math classes, can I still pursue the major in architectural design?

Yes. However, in this case you may want to consider taking Math 19, 20, and 21 instead of Math 41, commonly taken by engineering students. After you take Calculus and one course in Statistics (most students take Statistics 60- an elementary course in statistics) you can choose *either* math or science classes to bring your total math/science units up to 36. In general, it is also considered less rigorous if you take the required Math and Physics courses out of sequence, that is, if possible don't start at the beginning of the year but take during a later quarter.

If you do want to pursue more math instead of science, CME 100 is a good choice instead of Math 51 (students find CME 100 more accessible.) Also it may be of interest to take CEE 101D (Mathematical Laboratory Applications in CEE Engineering).

What would you recommend for my courses in science?

Graduate schools of architecture typically require courses in solid mechanics, and some call for courses in the physics of heat and light. You can take Physics 21 (Mechanics and Heat) instead of the more advanced Physics 41 and 45 (which provides a more advanced treatment of mechanics, heat, and light). When you sign up for Physics 21 you should consider signing up for Physics 22 a complementary laboratory that also gives you one more unit of credit.

After taking Physics 21, there are a number of choices that relate well to architecture. Most notably, Earth Systems 101 (Energy & Environment), Earth Systems 102 (Renewable Energy Sources and Greener Energy Processes). In addition, you could take CEE 63 (Weather and Storms) *or* CEE 64 (Air Pollution: From Urban Smog to Global Change). CEE 70 (Environmental Science and Technology) is another possibility. Also consider GES 1 (Fundamentals of Earth Science) and Physics 23 or 43 (Electricity).

What would you recommend as a course to meet the Science and Technology Requirement?

Either, STS 112, STS 115 or STS 125.

What would you recommend as a third course in Fundamentals?

If you are interested in Green Architecture, consider taking Engr. 30 (Engineering Thermodynamics). More generally, Engr. 50 (Introductory Science of Materials) would be a good choice for students wanting to pursue graduate studies in architecture. Also, Engr.70 A,B is a computer science class that may be of interest.

What restricted electives would you recommend if I were interested in “green architecture”?

You should take CEE 176A (Energy Efficient Buildings) and CEE 115 (Goals and Methods for the Sustainable Design of Building). Also consider taking ME 222 (Beyond Green Theory: A Workshop in Ecological Design). In addition, CEE 101B (Mechanics of Fluids) provides a fundamental understanding of fluid mechanics, which could prove useful in understanding water drainage and wastewater issues in building design.

(Also note that Earth Systems 101 (Energy & Environment) and Earth Systems 102 (Renewable Energy Sources and Greener Energy Processes) not only count as required science units but are very applicable to green architecture.)

What do architecture graduate schools typically require for admission? How well does the Architectural Design major prepare students for graduate programs in architecture?

Architecture graduate schools generally require coursework equivalent to the following: Physics 21, Architectural History 3 (or a similar survey course), and Math 19, 20, and 21. These are all required in the architectural design major. Taking more than one architecture history course is also highly recommended.

Also in order to apply to graduate architecture schools, you must submit a visual portfolio, usually composed of a mixture of drawings, graphic design work, photography, architectural design, etc. The architectural design major encourages you to take such courses under the restricted depth electives. In addition, the major requires that you take CEE 31 or CEE 31Q which is a class in architectural drawing and CEE 130 (Architectural Design: 3-D modeling, Methodology, and Process). For those wanting assistance in preparing a portfolio, CEE 139 (Design Portfolio Methods) should be taken as a restricted depth elective.

Can I take the Architectural Design Major and still go to an overseas campus?

This depends on the campus and the current course offerings. In general, Oxford provides some unique opportunities. The director of that program is an architectural historian and offers coursework as well as individual tutorial opportunities in architectural history. In addition, through a cooperating school, Oxford Brookes University, it is often possible to take architectural studio courses or tutorials.

At other campus locations it might be possible to take a number of art studio courses. Depending on what faculty are participating in any given year, it may be possible to take some requirements for Engineering Fundamentals. Traditionally these Engineering Fundamentals courses have tended to be more available at the Kyoto and Berlin campuses.

In addition to coursework, some Stanford Overseas campuses are well equipped to provide summer internships tailored to meet the needs of individual students. The campuses in Kyoto and Berlin are well known for their internship placements.

In all cases, the key to attending an overseas campus is careful planning. For example, it may be possible to meet some GER requirements while at an overseas campus. A few campuses offer Engr. 50 as an online course. It's a good time to take some relevant electives like studio art or architectural history courses if you get pre-approval for such deviations from your advisor.

Will the Architectural Design major suffice to prepare me for a career as a professional architect?

Stanford undergraduates interested in architecture should plan on additional graduate studies. The Master of Architecture program is the degree program for professional practice and is typically three years in length. After graduation, there is a required three -year internship as well as a set of professional licensing exams that you would need to complete.

I am having a little difficulty sequencing the required courses Physics 21 ,Engr. 14, Engr. 60, and CEE 101A can I take any of them during the same quarter?

If you have to double up on any of these particular courses, it is alright to take Eng. 60 and CEE 101A during the same quarter. However, it is not a good idea to take Phys 21 and Eng. 14 at the same time.