

School of Architecture and Design University of Louisiana at Lafayette

Digital Studios Revised 7/25/06

“So the challenge... is to make computer integration into the process more pervasive and to extend it into areas of the architectural process where more value can be added. We need to think not of the electronic, intelligent drawing board, but the virtual design studio or the virtual design office.”

William Mitchell, Professor and Dean of MIT School of Architecture and Planning

Introduction

The University of Louisiana at Lafayette consistently demonstrates on a national level its commitment to computer technology and pursues new teaching strategies that the technology fosters to maintain its presence at a national level. This commitment to technology extends to the School of Architecture and Design. The School of Architecture and Design is embarking on a new era in the education of designers at UL Lafayette. **The curriculum requires that second-year design students in their fall semester have access to their own personal notebook computers.** This computer must be portable (i.e., notebook computers) to allow its full use in the Fletcher studios, lectures classrooms and site visits. It must also be capable of running high-end CADD, modeling and graphic software (i.e., 3D Studio, Viz, Rhino, Photoshop, other CADD programs). This requirement is in direct response to the changes occurring in the design professions that favors graduates who are capable of integrating computers with traditional methods in all aspects of design; schematic design, presentations, modeling, design development, construction documents, construction and manufacturing supervision, and analysis.

To accomplish this integration in design the computer must be capable of traveling with the designer to the various sites of the design process. The notebook is capable of going where ever the students goes and will enable a fluid back and forth method between traditional methods (sketch-books, tracing paper, models) and digital medium. The student can carry their design process with them to studio, support courses, their home, wherever they need to work on it as they do with sketchbooks now, recording thoughts and ideas. Students will have the capability to post their work for additional faculty input and questions outside studio time.

This technology expands the medium of the traditional studio through the capabilities of software and hardware but also through a linking to the campus network and from there to the Internet. The Internet is increasingly becoming an important tool in design for information, remote critiques and portfolio web sites. The student will have access to university input and output hardware, i.e., printers, scanners, digitizers, etc. through their notebooks via the network connections in each studio.

National and local surveys place CADD abilities second only to personal communication abilities in requirements for recent graduates. This requirement is necessary for the School of Architecture and Design and its students to continue in an ongoing quest to be competitive.

Implementation

Students are advised to hold off on their purchases until the start of the fall of their second year. Students will continue to develop both their design process and role of digital medium in subsequent design studios culminating in their final senior or fifth-year projects. Student-purchased hardware is a curriculum requirement; this requirement may enable the purchases to be made through student grants, loans, scholarships, etc. All recommended computers have a dual core and all software should be the latest versions and confirmed to take advantage of this processor.

Hardware: The hardware platform is a matter of personal preference of the individual students. The school is capable of supporting PC or Apple platforms. **The hardware is required to be portable.** Students will need their computers during studio class periods. The cost of a notebook computer meeting the suggested specifications is approximately \$1,300-\$3,500 for a new Apple, \$1,200-\$3,500 for a new PC. One strategy is to purchase the fastest

processor one can afford as RAM and other components may be upgraded as needed. It is recommended that industrial design students consider the mid or luxury platforms.

There are no requirements in terms of computer brand, however, in the following matrix Dell and Apple are used as examples. This is in no way to suggest that either Dell or Apple is a preferred manufacturer. You can print the following configurations from Dell at: www.dell.com/soad and use this to create equivalent systems from other manufacturers to do comparative shopping for the best value. Check out these websites also: www.hp.com, www.sony.com, www.toshiba.com, www.gateway.com, www.apple.com. All Macs are now dual boot machines, so you will be able to run Mac and PC software natively on these machines. You are, of course, not limited to these configurations, but they should be seen as a base to start configuring your own machine.

	MAC			PC		
	Entry MacBook	Mid MacBook Pro	Luxury MacBook Pro	Entry DELL Latitude D820 OR EQUAL	Mid DELL PRECISION M65 OR EQUAL	Luxury DELL PRECISION M90 OR EQUAL
Processor Class	Intel Core Duo	Intel Core Duo	Intel Core Duo	Intel® Core™ Duo T2300E	Intel® Core Duo processor T2500	Intel® Core Duo processor T2600
Processor Speed	1.83 Ghz	2 Ghz	2.16 Ghz	(1.67GHz/667Mhz)	(2.00GHz/667Mhz)	(2.16GHz/667Mhz)
Cache	256KB	1MB	??MB	1MB	2MB	2MB
Ram	1Gig	1Gig	2Gig	512MB, DDR2-533 SDRAM, 1 DIMM	1GB, DDR2-667 SDRAM, 2 DIMM	2 GB, DDR2-667 SDRAM, 2 DIMM
Hard Drive	60GB	80GB	120GB	40GB, 5400RPM	60GB 7200RPM	100GB 7200RPM
Video Card/ Memory	64MB / Intel Graphics Media Accelerator 950	128MB / ATI Mobility Radeon X1600 (PCI Express)	256MB / ATI Mobility Radeon X1600 (PCI Express)	256MB NVIDIA® Quadro NVS 110M TurboCache	NVIDIA® Quadro FX 350M 512MB Turbocache, OpenGL	NVIDIA® Quadro FX 1500M, 256MB (dedicated), OpenGL
Display Type	active XGA	active SVGA	TFT Display	WXGA LCD Panel	WXGA LCD Panel	WUXGA LCD Panel
Display size	13	15	15	15.4	15.4	17
Card Slots	1-I & 1-II	1-I & 1-II	1-I & 1-II	2-II or 1-III	2-II or 1-III	2-II or 1-III
Network Support	Ethernet 10/100	Ethernet 10/100/gig	Ethernet 10/100/gig	Ethernet 10/100	Ethernet 10/100	Ethernet 10/100
FireWire/USB	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Wireless	Airport Card	Airport Card	Airport Card	802.11g Mini Card	Intel® 3945 802.11a/g	Intel® 3945 802.11a/g
Drives	Combo Drive	Super Drive	Super Drive	24X CD-RW/DVD	8-24-24-24X CD-RW/DVD Combo Drive	8XDVD+/-RW

The following connectors are required: Ethernet, Serial, USB, Firewire Video 15 pin.

Optional Hardware: Extra battery, external drives, printers, drawing tablets, scanners, etc. are available and should be considered on personal need and in consideration of personal resources. Compatibility of all components is critical.

Software:

ARCHITECTURE

INDUSTRIAL

INTERIOR

ALL An office suite of products MS Office/Open Office or equal including word processing and presentation software

ALL Adobe Creative Suite or equal—the latest version should be Intel core duo compatible.

SKETCH-UP (*student discount available*)

RHINO 3d (*student discount available*)

SKETCH-UP (*student discount available*)

AutoCad Lite

Other programs may be required for specific courses and majors. Many software vendors offer discounts to students.

Internet: Fletcher Hall has a wireless Ethernet 10/100 network. It will be necessary to have wireless capability to access this network. If you are off campus, modem connections require you to have an Internet Service Provider (ISP). On campus, students set the network configuration to DHCP. In addition, students with PDAs and other devices may add Bluetooth wireless capacity to their computers to connect to those devices.

Support: The college will provide the necessary peripheral equipment; scanners, plotters, printers, in the VRC and network access in the studios. A charge will be collected for prints differing for each device. The university does not provide technical assistance for hardware; students should contact the manufacturer for solutions to hardware problems. Students may also refer to the Computing Center Help Desk in Stephens Hall with general operating system questions. Students have access to electronic mail service accounts on the main university computer. Contact the Computing Center Help Desk to activate your account.

Insurance: It is strongly suggested that students purchase an additional rider policy specifically for this machine. The school is not responsible for security of this equipment.

Financial Assistance Programs: This can occur through student aid programs and individual hardware vendor discounts. Financial assistance may be available to qualifying students as grants or loans; students should contact the university's Financial Aid office in Foster Hall for further information. Many manufacturers have student loan programs with competitive interest rates and educationally discounted hardware. Each student should investigate these individually.