

Laptop Requirements

Department of Architecture, Iowa State University

(Draft: 06-01-18)

	Mac	
	Recommended - 15" MacBook Pro	Minimum - 13" MacBook Pro
<i>Processor</i>	2.9GHz quad-core Intel Core i7	2.5GHz dual-core Intel Core i7
<i>Memory (RAM)</i>	16GB	16GB
<i>Graphics card</i>	Radeon Pro 560 with 4GB memory	Intel Iris Graphics 640
<i>Hard disk</i>	512GB SSD	256GB SSD
<i>Display</i>	Retina 15" (2880 x 1800)	Retina 13" (2560 x 1600)
<i>Wireless</i>	802.11ac	802.11ac
<i>OS</i>	OS X High Sierra and Windows 10 (Bootcamp)	OS X High Sierra and Windows 10 (Bootcamp)

	PC / Windows	
	Recommended	Minimum
	- Intel Core i7 (8th generation or better) - 2.4GHz or better processor	- Intel Core i5 (7th generation or better) - 2.7GHz or better processor
	16GB or more	8GB; more RAM highly recommended
	- Dedicated graphics card (NVIDIA or ATI/AMD) - minimum 2GB of dedicated graphics RAM (GDDR)	Intel Iris Graphics 540
	256GB or greater SSD drive	512GB SATA drive; SSD drive recommended
	14"-15" diagonal display (or greater) HD 1080p or better resolution (1920x1080), minimum	HD 1080p (1920x1080)
	802.11ac	802.11ac
	Windows 10	Windows 10

- Peripherals*
- wireless mouse
 - external backup drive, 2TB or greater
 - key drive, 16GB or greater
 - security lock

- Required Software (PC and/or Mac versions)*
- Microsoft Windows 10 (with Bootcamp; PC only)
 - Adobe Creative Cloud
 - MS Office (or equivalent)
 - Autodesk Autocad
 - Rhinoceros 3D (PC Version ONLY!)
 - V-Ray for Rhinoceros (PC only)
 - other software available from University

Example Laptop Configurations

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Mac		
	Recommended *	Minimum
Model	15" Mac Book Pro	13" Mac Book Pro
Laptop cost**	\$2,799.00	\$1,999.00
Estimated cost w/ software***	\$4,313.00	\$3,513.00
Processor	2.9GHz quad-core Intel Core i7	2.5GHz dual-core Intel Core i7
Memory (RAM)	16GB	16GB
Graphics card	Radeon Pro 560 with 4GB memory with 2GB GDDR5 memory	Intel Iris Plus Graphics 640
Hard disk	512GB SSD	256GB SSD
Display	Retina 15" (2880 x 1800)	Retina 13" (2560 x 1600)
Wireless	802.11ac	802.11ac
OS	OS X High Sierra and Windows 10 (Bootcamp)	OS X High Sierra and Windows 10 (Bootcamp)

PC / Windows			
Recommended (alternate 1)	Recommended (alternate 2)	Minimum (alternate 1)	Minimum (alternate 2)
Alienware 15 (2018)	Razer Blade (2018)	Acer Aspire VX 15	Dell Inspiron 15 7000 Gaming
\$2,199.99	\$1,899.99	\$999.99	\$949.99
\$3,713.99	\$3,413.99	\$2,513.99	\$2,463.99
2.2GHz quad-core Intel Core i7-8750H	2.2GHz quad-core Intel Core i7-8750H	2.6GHz quad-core Intel Core i7-7700HQ	2.5GHz quad-core Intel Core i5-7300HQ (3.5GHz max)
32GB	16GB	16GB	8GB (upgrade later for \$140)
NVIDIA® GeForce GTX 1070 OC with 8GB GDDR5	NVIDIA GeForce GTX 1060 with 6GB GDDR5	NVIDIA® GeForce GTX 1050Ti with 4GB GDDR5	NVIDIA® GeForce GTX 1050Ti with 4GB GDDR5
512GB SSD	512GB SSD	256GB SSD drive	256GB SSD drive
15.6" FHD (1920 x 1080) IPS	15.6" FHD (1920 x 1080)	15.6" FHD (1920 x 1080)	15.6" FHD (1920x1080) Anti-Glare LED-backlit
802.11ac	802.11ac	802.11ac	802.11ac
Windows 10	Windows 10	Windows 10	Windows 10

* This is the same model offered by the College of Design Laptop Program; cost shown is for the laptop ONLY, purchased from Apple

** Cost as configured; may not include education discount, shipping or taxes, etc.

*** Software costs estimated at \$1,514 for 4 years' licensing of Adobe and 1 year of V-Ray; does not include other software which may be required for classes

NOTE: College of Design Laptop Program includes software, 3 year warranty, and peripherals at a cost of \$3,600, paid in six installments

Required Software

Program*	Platform	Cost	URL
Adobe Creative Cloud Complete	PC or Mac	~\$1320 for 4 years / \$20/mo.	http://www.adobe.com/creativecloud/buy/students.html
Autocad	PC or Mac	Free to students	http://www.autodesk.com/education/free-software/autocad
MS Office 365	PC or Mac	Free to students	https://login.microsoftonline.com
Rhinoceros 3D 6	PC only	\$95 at ISU bookstore	https://www.rhino3d.com/sales/north-america/United_States
Vray for Rhino	PC only	\$99 / year	https://store.chaosgroup.com/products/educational
Windows 10 (needed if you purchase a Mac)	PC	Free to students	http://onthehub.com/download/free-software/windows-10-education-for-students/

*Other software may be required for later courses