Computer and Media Policy

SDSU Department of Architecture

Section 1: Computer Hardware Selection

1.0 Introduction

The role of digital computing is fundamental to architectural education and practice. Through the guidance of faculty and a creative environment each student is responsible for constructing and maintaining their own RIG.

The primary curricular position of the Department of Architecture is to give students an understanding of a conceptual framework to engage and maximize the design potential of digital tools comprising their own RIG. Students are expected to purchase a laptop computer during the fall of their second semester as undergraduates. Successful completion of the program will require each student to develop proficiency with these technologies.

It is important to keep in mind that digital technologies are continually changing and will do so throughout one's academic and professional career. However, the fundamental concepts shaping computational design do not change as rapidly as software platforms and techniques. An agile RIG should allow for the flexibility and opportunity to explore the exchange of ideas and functions across different software. To facilitate and promote students' aptitude with these tools, the Department of Architecture has developed the following guidelines and policies regarding computer hardware and software.

1.1 Hardware

DoArch encourages the purchase of a laptop as the primary piece of each student's RIG. DoArch does not endorse a specific computer model or brand. Students are responsible for meeting the minimum criteria to build a hardware computer system that meets the recommendations outlined below.

OPERATING SYSTEM:	Windows 7, 8.1, or 10 (64-bit) MacOS 10.8 / Windows 7, 8, or 10 (64-bit) in BootCamp
PROCESSOR:	2.3 GHz quad-core or faster
SCREEN SIZE:	15" (1920x1080) Minimum
RAM:	8 GB Minimum
DISC STORAGE:	500 GB Minimum
VIDEO CARD:	1 GB Minimum with DirectX 11 and OpenGL 2.0 or higher NVIDIA GeForce or Quadro are recommended

1.2 Storage

Each student should consider the role of systematic storage in the construction of their RIG. Systematic storage partly refers to an organized and reoccurring backup storage device that is updated manually or

automatically. It is also essential to carefully develop a system by which digital work is named and organized. It is required that each student obtain additional external storage as a means of file backup. External hard drives are well suited for archiving files and for supplemental storage. Cloud storage is also an option for file backup. OneDrive for Business cloud storage is given to students for free through university-supplied email. Small flash drives (also known as thumb drives, jump drives, pen drives, or memory sticks) are well suited for transporting files between devices.

1.3 Accessories

Each student may find additional hardware accessories (mice, keyboards, cameras, additional monitors, and printer) to construct their RIG in order to support their work.

1.4 Output

Outputs will vary depending on the course, but will likely include two dimensional and three-dimensional drawings and models, produced using digital and analog methods. Students can expect approximate output costs to be outlined in course syllabi.

Section 2: Software

2.0 Introduction

Students are expected to obtain the software needed to complete the tasks and produce the outputs required by their courses. Each student is expected to engage in pursuing the necessary aptitudes with specific software tools. Addressing the implications and fundamental concepts of digital tools is a critical part of the DoArch curriculum. Software training is not a standard part of the architecture curriculum. The software platforms outlined below are integral to the development of each student's RIG. This development is evidenced in the architecture curriculum through the relationship between analog and digital processes.

As student's architectural education progresses, so will the capacity and composition of their RIGS. Software piracy is illegal. Students are responsible for the maintenance of their own RIG. DoARCH does not provide hardware or software support for student equipment.

2.1 General Productivity

The list of software outlined below is a basic outline of some of the most commonly used tools for general communication. This is the communication and maintenance component of the RIG.

Microsoft Office (Available for free through the University)
- Word
- Excel
- PowerPoint
- OneDrive for Business

Anti-Virus + Malware (Available for student purchase at: the University Bookstore)

2.2 Basic Digital Concepts

The list of software outlined below is tailored to give the beginning architecture student a basic understanding of the implications of using digital tools. Many platforms will be introduced in a focused

manner, concentrating primarily on the role of lines as a drawing and graphic medium. This is the drafting component of the RIG.

Adobe Creative Cloud (Available for student purchase at: http://www.adobe.com/students)

- Photoshop
- Illustrator
- InDesign
- Acrobat Pro

Autodesk AutoCAD (Available for free download at: http://students.autodesk.com)

Rhinoceros 3D (Available for purchase at: the University Bookstore)

2.2 Digital Modeling

The list of software outlined below is tailored to give architecture students an advanced knowledge of the role and use of digital modeling. Many platforms introduced as part of the basic digital concepts will be expanded as modeling tools. This will also mark the introduction of parametric processes. This is the modeling component of the RIG.

Rhinoceros 3D (Available for purchase at: the University Bookstore)

Autodesk Revit 2014 (Available for free download at: http://students.autodesk.com)

2.3 Digital Collaboration

The list of software outlined below is tailored to introduce architecture students to the role of building information technologies. Many platforms introduced as part of digital modeling concepts will be expanded and unfolded as data and information management tools. This will also mark the introduction of workflows and collaboration across disciplines. This is the data and information component of the RIG.

Autodesk Revit 2014 (Available for free download at: http://students.autodesk.com)

RhinoBIM (Available for purchase at: http://rhinobim.com)