

HSPV 624-001

METHODOLOGICAL APPROACHES TO HISTORIC PRESERVATION
THROUGH THE USE OF DIGITAL TECHNOLOGY

Instructor:

John Hinchman

Class Meeting Time:

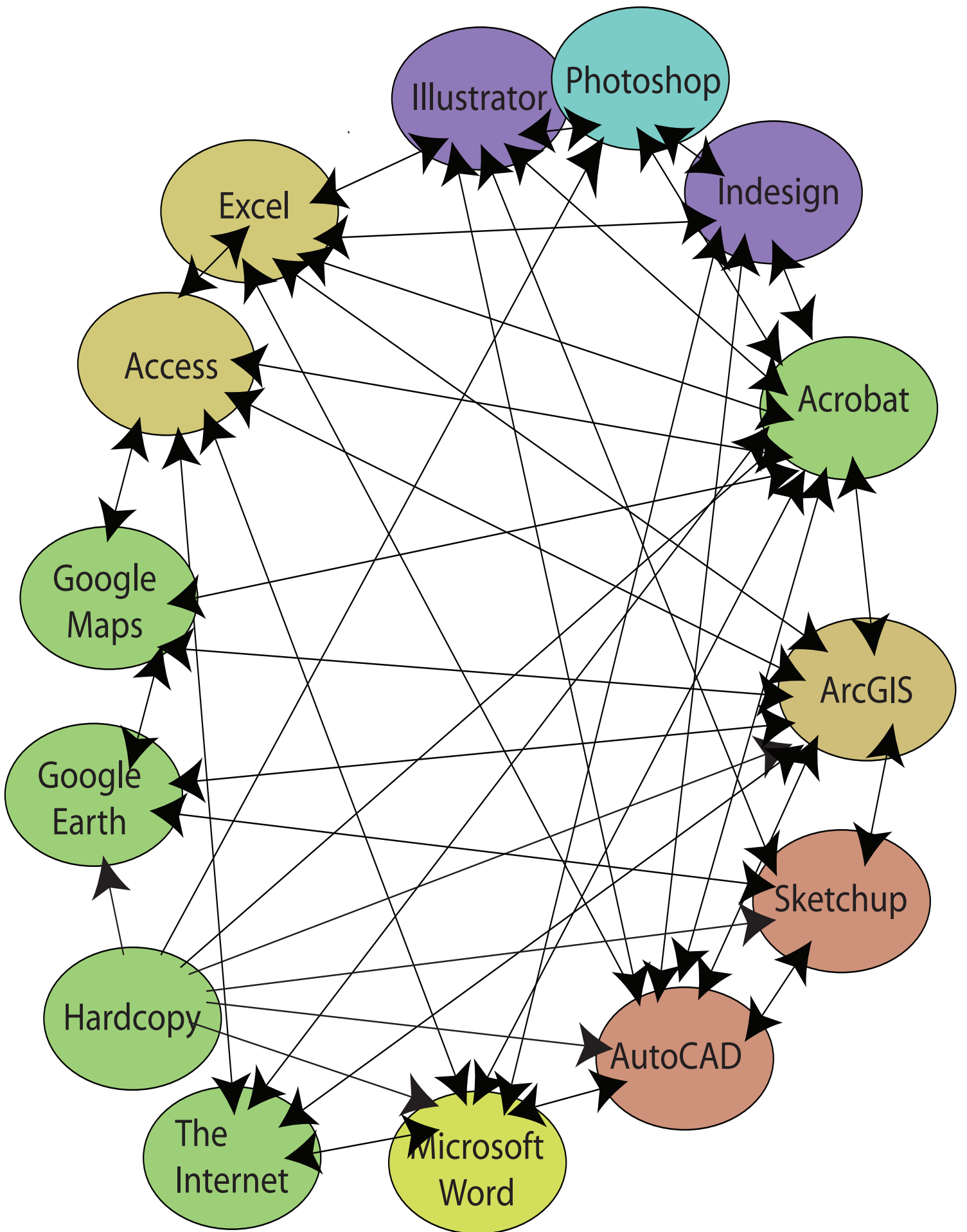
Thursday 9:30 am - 11:00 am

Thursday 5:00 pm - 6:30 pm

TAME YOUR TECHNOLOGY ...
OR IT WILL BECOME YOUR MASTER.

IN TODAY'S HIGHLY CONNECTED WORLD,
YOU MUST DEFINE BOUNDARIES AROUND
YOUR TIME.

Lee J. Colan, 107 Ways to Stick to It



INTRODUCTION TO DIGITAL MEDIA

Course Syllabus



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Regardless of how we identify our individual roles in Heritage Management and its related fields, the underlying requirement for all of us is the proper collection management and distribution of information. We are first and foremost a service industry. We provide! As we all continue to catapult into the digital age, the ability to maximize the large quantity of information generated

from any well-documented site or project, through knowledgeable selection, application and linkage of digital technology is a critical skill that Heritage Management professionals must have.

The use of digital tools can improve historical research efficiency; the speed and accuracy of surveys; the quantity and quality of archival information directly linked to site features; the documentation of conditions, treatments and maintenance; the mapping and spatial location of historic sites, or the ability to communicate with the ever expanding digital world. Additionally digital tools can recover previously unavailable information from historic maps, documents and images (data collection and conversion). With powerful analytical capabilities, these digital tools can improve our understanding of the information (data management and analysis) and enable the production of creative communication vehicles for project discussions, funding proposals, reports and interpretive presentations for public outreach (data distribution and presentation).

CORRECTING
MISTAKES HELPS
TO ENHANCE
COMFORT LEVEL
AND BEING
COMFORTABLE
WITH
TECHNOLOGY
MAKES CHOOSING
THE RIGHT
SOFTWARE EASIER.

While all this is critical to success in the current world of Heritage Management, the ability to simply use the technology is not enough. In order to maximize these tools we must understand the underlying concepts on which software is built, in turn knowing why we apply it and how we choose the right solution for a problem. Softwares are more than just a set of buttons, each doing things in specific ways for specific reasons; they are tools to process and manage our information.

For the same reason that in the pre-digital age we didn't treat a note to a client the same way we treated an historic map, we need to make sure that we identify our data for what it is, determine what we want to do with it, and then decide what the proper software is to use to process it. Fortunately most people are smart enough now to not use Microsoft Word both to write letters to clients and save photographs. With digital fluency a person can use a digitized paper map in Adobe InDesign for a final report layout, in Adobe Photoshop for applying metadata to that image, in Auto CAD to vectorize that map and in ArcGIS as a background map just to name a few. All of the uses men-

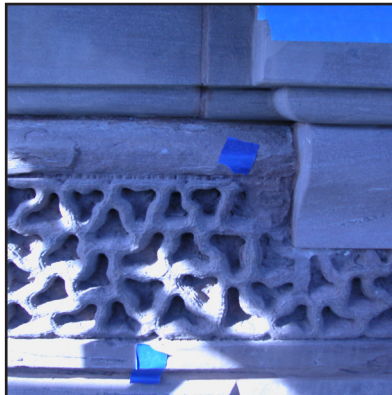
tioned above are good ones but will they, and should they all be accessing the exact same digital map file on a server? It is answers to these questions that make a difference in good digital data management.

In Heritage Management we are taught to think like an archivist who's primary role is to make good choices and not to pack rat, but do we think that way digitally? With the expanding rate and reduced cost of storage space we have to remember that just because we can store everything doesn't mean we should store everything. To really have the ability to contribute in a significant and intelligent way, people in the field must be able to set limits within the technical world.

- **When is too much really too much?**
- **What to keep and what to get rid of?**
- **How many copies of a file should be kept?**
- **And which copy should be considered the "most important" one?**
- **Just because you can take a 50 megapixel image, doesn't mean that your client wants it or your softwares can handle it.**
- **If you can take 5000 photographs of a site does it mean that you should keep them all?**

WITH POWERFUL ANALYTICAL CAPABILITIES, THESE TOOLS CAN IMPROVE OUR UNDERSTANDING OF INFORMATION AND ENABLE CREATIVE PRODUCTION...

- **If you can provide your client a database for a project with all of your collected data, but they can't understand the database design then what good does it do for them?**
- **LIDAR and Laser scanning are all the rage right now, but what good is the data if the files are massive and difficult to convert to something of value?**
- **Maps are incredibly valuable, but do they say what you want them to?**



In the end, too much can be a huge waste of time and money.

This class provides an introduction to using digital tools for addressing three fundamental concepts.

- 1. collection**
- 2. management / analysis / processing**
- 3. presentation / output**

Most of the digital processing in the field of preservation sits within the realms of DATA COLLECTION, DATA MANAGEMENT, and DATA DISSEMINATION. These three ideas existed before the digital age and although they are critical, application can not be ignored. Softwares need to be learned and used in order to be useful. Software is not like riding a bicycle. Either use it or lose it! Many of the following ubiquitous softwares will be discussed in greater depth and used in this class.

- **Adobe Photoshop**
- **Adobe Illustrator**
- **Acrobat**
- **Adobe InDesign**
- **Microsoft Access**
- **Microsoft Excel**
- **Google Earth**
- **QGIS**

While many people from different areas of Heritage Management have had different levels of instruction with different software programs for different purposes, it is a goal that this class will help both the beginner as well as the seasoned veteran by addressing not just the softwares but the concepts associated with using softwares in Heri-



tage Management in the digital age. The intent is that in the end you have both a set of useful software tools as well as a better ability to make good decisions about what to use, how to use it and when to use it.

By no means is this class just "Button Pushing 101" nor is it intended to make each individual fully proficient in any of the software covered. An entire semester could be used to teach any one of these softwares and it is therefore your job to continue the learning process. The class will discuss, or mention a large number of different softwares, many of which are very common and others which are not. Some of the software mentioned may not even be available to everyone but having access to all the softwares mentioned is not critical to understanding the concepts that they convey.

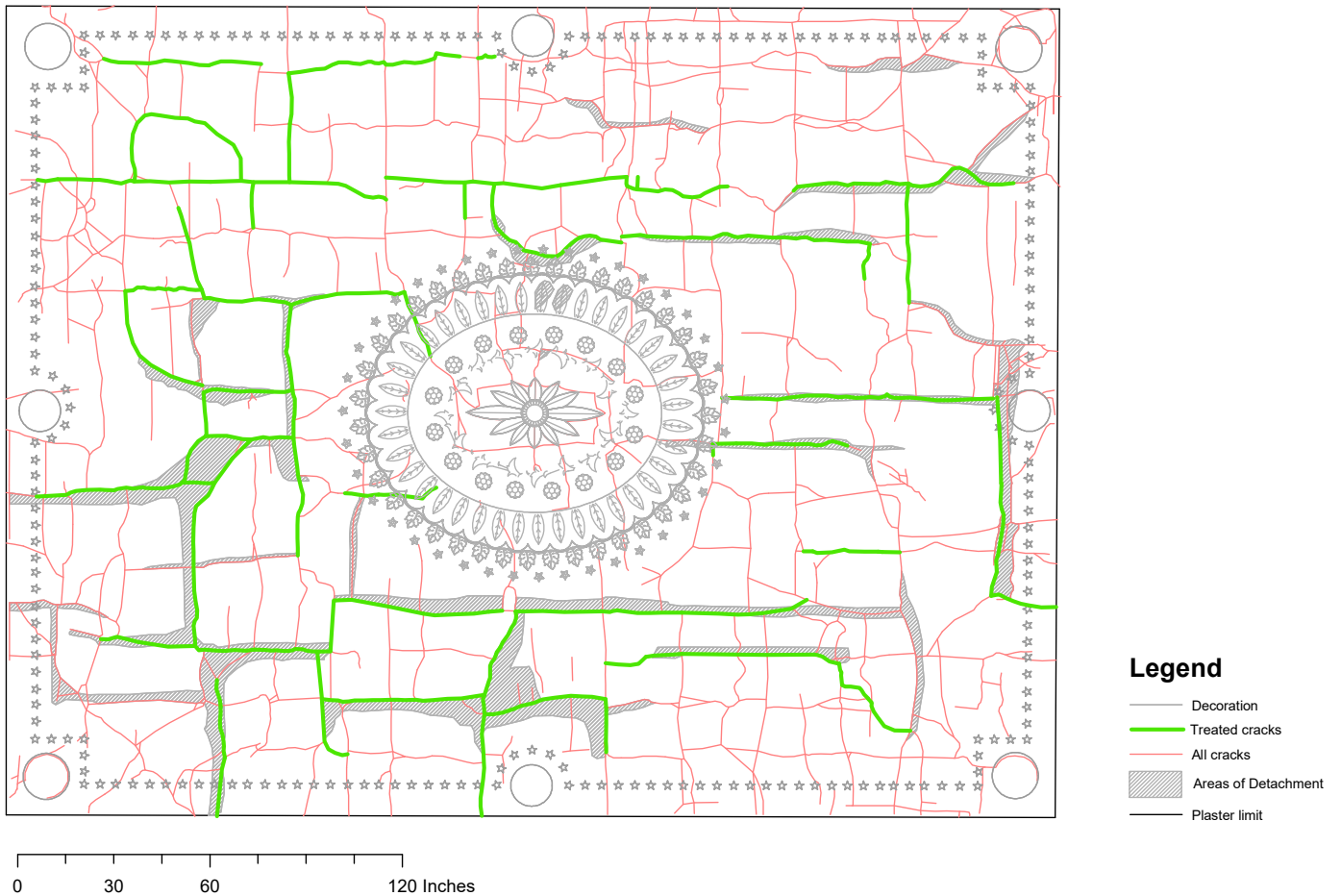
This is a methodology and concepts class designed to help you better understand the integration of available softwares as tools but it is also fundamentally a skills class. As any carpenter knows, the benefits of learning to use tools while building a house allows the individual to learn both the use of the

tool as well as the process of building a house. It is the conscious association of tool and product that makes the carpenter a more powerful asset to a company. Like with construction, anyone who learns the tools outside the context of their field or scope of understanding may have difficulty applying what they have learned without a clear connection. Any carpenter also knows that the only way to get good at using a hammer is to use it over and over again.

Since the approach to any client request is not controlled by a systematic sequencing of individual tools (when building a house you don't use a hammer until all the nails are driven and then pick up a saw), the use of software in this class may not be sequential. This means that we may use the same software more than once at different times in the course based on the need for that software. The obvious goal of this is to introduce you to both the tools available, but also a methodological approach to using those tools. Clearly not every use of these digital tools can, or will be covered. The goal of this class is to provide a glimpse of what is possible. The tools taught can be applied in a wide variety of settings, and it is through your

own creative approach to these tools in future settings which will allow you to maximize the potential for any one of these applications. If you have learned to use tools to build a house, it is not a fantastic leap for a creative person to figure out how to use those same tools to build a boat. Additionally, and perhaps most important, this class is intended to help remove any fear you have with trying softwares.

Several softwares will be discussed and used during the class. Additional instruction sheets are provided in written form with content provided for step by step processing as well as helping to better understand the concept of why you are using the softwares. Once again, this class is not intended to make anyone fully proficient in any of the software covered. Instead it is designed to help foster confidence with



digital technology in heritage management people. The exercises each loosely approach a set of problems found commonly in different areas of our fields to arrive at a meaningful and communicative output clearly with a focus on the modern age of computers. Although the exercises are intended to provide experience and understanding of a set of digital tools they are also designed to introduce students to ideas and difficulties within the field by working from real interrelated data and expectations that would exist in heritage management with or without computers. As such the class focuses not just on software understanding but also on concepts, content, quality of output as well as creativity, helping people to produce reports and products that are well executed both as far as content as well as design; products that would be expected in any professional setting.

If nothing else, this course is about process. It is important to remember that getting the correct answer is not always the shortest path to competency. Mistakes will be made by everyone and pitfalls are part of the process. Correcting those mistakes, however helps to enhance comfort level and

being comfortable with technology makes choosing the right software easier. By having a better understanding of the integrated nature of different software programs and the concepts behind them, you can choose a certain software, not because it's what you know, but because you know it's the right one to use for the job as a result of the associated concept behind your project.

By the end of the semester you should be more confident with software and have a more comprehensive understanding of how to use software in the fields associated with heritage management. In addition you should also be more confident in which software to use; when to apply it; why one software may be better than another; how to transfer data from one software to another in useful ways; and in what format to present the results of your work.

For you to actually succeed at this though, completing the exercises is not enough. It is your job to apply creative thinking to see how the exercises can be expanded into the different projects you work on in your education and career. It is therefore your job to continue the learning process outside the classroom and after the class

is over. If you have learned to use tools to build a house, it is not a fantastic leap for a creative person to figure out how to use those same tools to build a boat.

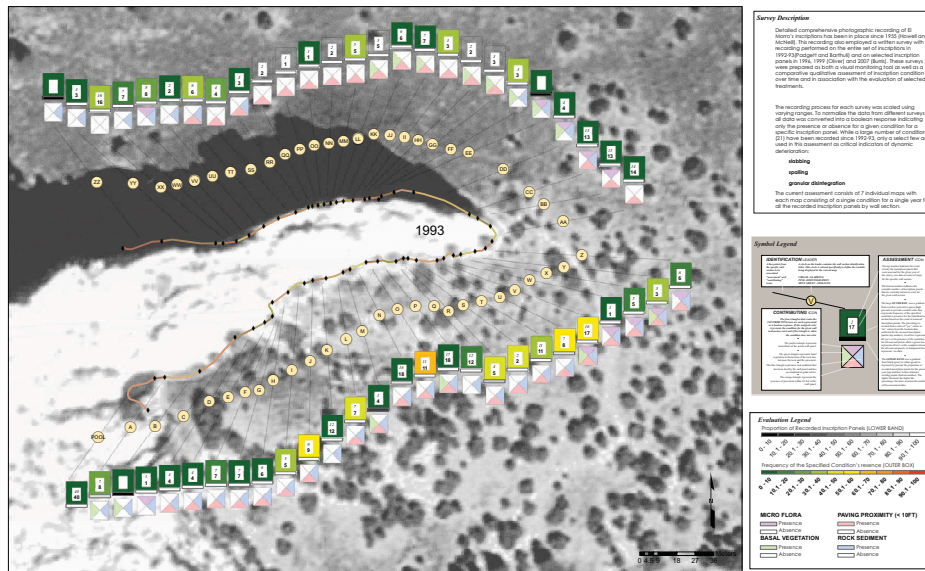
At a graduate level, you are expected to conduct your research on your own schedule and it is not the responsibility of the faculty to constantly remind you of your need to stay on top of your work. During the next 14 weeks you will be expected to complete a number of assignments using a wide range of different softwares. Some of the assignments are long and can be difficult for people with little knowl-

edge of softwares. It is expected that you will do these assignments in a timely fashion and not put the work off until the last minute. Since a significant concept addressed in this class is the interconnection of softwares, most of the assignments are themselves interconnected meaning that you need to complete one in order to do the next.

Each of the assignments has a long description to guide you through the process of completing the work. The descriptions will tell you how to do the steps, but it is your responsibility to figure out why you are doing each step and what value it can serve in the

future. The instructions in the assignments start out very comprehensive but progressively become less so as you move through the semester. This is intentional so that you will begin to find and understand some of the functions and concepts of software on your own. Clearly your goal is to build confidence so that you can begin to investigate softwares without fear.

1993 PERCENT OF SLABBING
BASED ON REVIEWED PANELS WITHIN A GIVEN WALL SECTION





PRE-REQUIREMENTS

There are NO pre-requirements! I have a large collection of software specific books stored in my office. You are welcome to consult these books during the course and in your future research projects. A resource list of books, helpful websites, and other training resources available may also be provided for continued instruction. Additionally, the best single resource for solving your technology problems, is technology itself. Just Google it!

CLASS SCHEDULE

Attendance of all classes and labs is required. Absences will impact your grade.

CLASS / LECTURE

Thursday 8:30 am 11:30
Classroom: EDUC 200

LAB

Thursday 5:00 pm 6:30 pm
Virtual Zoom meeting

GRADING

Grades will be based on the assignments, class attendance and participation, and your ability to maintain an organized computer file system within the course folder, which is easily accessible and usable by other members of the class. It is required that you submit a digital copy of your finished assignment into the proper

numbered lab folder under the sub-missions folder by the appointed time as outlined on the class calendar. It is also required that ALL assignments be saved to your personal folder within the course folder for your own safety. This requirement carries with it the basic idea that you need to properly organize your content within the folders themselves. Organization will be used as part of the grading. It should be stressed that this class is not just about your individual organizational or artistic or IT ability (although they are all important). It is about learning the capabilities of the many tools available to preservationists to digitally collect visualize and communicate. As such, grading may reward those most that try everything and demonstrate an understanding of how all of the topics covered are connected and how they can be utilized to progress forward to an end as seen in class discussions and final assignments. Each assignment will be graded up to 5 points.

- **1 point will be given for “attempted” work that was not completed.**
- **2 points will be given for the work if it is complete but the product significantly lacks vital**

parts, or has completely missed the point of the assignment.

- **3 points will be given for an assignment where the product is functional but where some important aspects have been overlooked.**
- **4 points will be given for work that is complete, functional, and meets the basic requirements of the assignment.**
- **5 points will be given for a fully functional product where all aspects of the assignment have been addressed to their fullest extent and the work exceeds expectations.**

Decimal values will be given where appropriate.

Any late assignments (not submitted by the date and time on the class calendar) will automatically be reduced by half a point and will be reduced by a full point if they are not submitted by the next Monday class period. A point will be taken off for each successive week where the assignment is not complete.

All final points from each assignment will be added together and a numeric percentage will be derived based on a total of 100%. From the

percentage, a letter grade will be determined based on a standard letter grade breakdown.

In one assignment at the end of the semester, using InDesign, the assignment will be graded twice (for a total of 10 points). Since InDesign is a layout software, one grade will be given for showing proficiency with the software and the other will be given for the graphic execution. The final product will be judged based on the proper use of the tools necessary showing a student's clear understanding of the softwares covered.

Additionally the graphical quality of the final assignments will be judged on a student's ability to be content comprehensive as well as graphically conscious of their topic of choice.

EXPECTATIONS

All students will be expected to carry out hands on exercises using each software in order to understand its interface as well as its relationship to other softwares. Although the class is intended to provide experience and understanding of a set of digital tools used in the preservation field, it is not just about the software. Assignments are designed to introduce students to ideas and difficulties within the field by working from real interrelated data. As such, the outcome from each student should reflect a focus not just on software proficiency but also on content and creativity, producing reports and products that would be expected in any professional setting. With that said though, it is important to remember that getting the correct answer is not always the shortest path to competency. Mistakes will be made by everyone and traps and pitfalls are part of the process. As such people will not be penalized for their mistakes. They will be penalized for not completing assignments, not correcting their mistakes and for not trying.

In addition it is critical that process be taught within the context of actual historic fabric. This class will focus on a specific set of blocks within the city and students will need to make regular site visits multiple times during the semester in order to collect data needed to complete assignments.

You will organize and maintain a well-conceived and organized project folder within the course folder system.

ACADEMIC INTEGRITY

The following is a link to the University of Pennsylvania Code of Academic Integrity.

http://www.upenn.edu/academicintegrity/ai_codeofacademicintegrity.html

MY OFFICE HOURS

Office hours are virtual and require an appointment. I am available to help students with the class assignments, or to provide advice on individual projects and theses on an as-needed basis. Office hours are Monday afternoon from 1:00 pm to 5:00 pm. Or I can also be reached through email.

I check my email twice a day, in the morning when I arrive in the office and late in the afternoon before I leave. I may check other times depending on the demands of my day but no one should expect a message from me faster than these two time slots allow.