

SPATIAL TECHNOLOGIES IN ANTHROPOLOGY
ASM 568 - 31517
SPRING 2021 - MICHAEL BARTON

COURSE RESOURCES

Texts

Conolly, J., & Lake, M. (2006). *Geographical information systems in archaeology*. Cambridge: Cambridge University Press. [CL]

Wheatley, D., & Gillings, M. (2002). *Spatial Technology and Archaeology: the Archaeological Applications of GIS*. New York: Taylor & Francis. [WG]

Other useful books

Updated 2013: Neteler, M., & Mitasova, H. (2008). *Open Source GIS: a GRASS GIS Approach, 3rd Edition*. New York: Springer. [NM] Available as an ebook at:
<http://link.springer.com.ezproxy1.lib.asu.edu/book/10.1007/978-0-387-68574-8>

Bodenhamer, D. J., Corrigan, J., & Harris, T. M. (2010). *The spatial humanities : GIS and the future of humanities scholarship*. Bloomington: Indiana University Press

Lillesand, T. M., Kiefer, R. W., & Chipman, J. W. (2007). *Remote sensing and image interpretation* (6th ed.). New York: Wiley.

Lock, G. R. (2000). *Beyond the map : archaeology and spatial technologies*. NATO science series. Series A, Life sciences v. 321. Amsterdam ; Washington, DC Tokyo: IOS Press ; Ohmsha [distributor].

Parcak, S. H. (2009). *Satellite Remote Sensing for Archaeology* (1st ed.). Routledge.

Smith, M. J. D., Goodchild, M. F., & Longley, P. (2015). *Geospatial Analysis: A Comprehensive Guide to Principles, Techniques and Software Tools* (5th ed.). Troubador Publishing Ltd. **Free online** plus additional resources at:
<http://www.spatialanalysisonline.com>

Westcott, K. L., & Brandon, R. J. (Eds.). (2000). *Practical Applications of GIS for Archaeologist: a Predictive Modeling Kit*. New York: Taylor & Francis.

Wiseman, J., & El-Baz, F. (2007). *Remote Sensing in Archaeology*. Available as an ebook at:
<http://www.springerlink.com/content/978-0-387-44453-6/#section=343768&page=1>

Free and Open Source Software used in class

GRASS GIS: (Geographic Resource Analysis Support System) This software can be downloaded in versions for Windows, Mac OS X, and Linux from the International GRASS Development Center at <http://grass.osgeo.org>. GRASS includes raster and vector GIS, spatial analysis and modeling, single-band and multispectral image analysis, and digitizing modules. GRASS is open source software and available free of charge. I recommend using version 7.8.5. I also recommend that you download the North Carolina demo data set (<https://grass.osgeo.org/download/data/>).

Additional info on the GRASS-Wiki: <https://grasswiki.osgeo.org/wiki/GRASS-Wiki>

FIJI/ImageJ: General purpose image processing software: including enhancement, image math, filtering, and analysis. Many plugins available that add features. ImageJ is available for download at: <https://imagej.net/Welcome>. FIJI is a version of ImageJ that comes packaged with a lot of useful plugins already installed. You can download it at: <http://fiji.sc/wiki/index.php/Fiji>.

MultiSpec: Image analysis software, specifically designed for working with multispectral remote images. Includes enhancement, rectification, image math, and supervised/unsupervised classification. Available in the public domain for download at <https://engineering.purdue.edu/~biehl/MultiSpec/>

Other Free and Open Source Software

QGIS: Another open source GIS package available free of charge, QGIS is available in versions for Windows, Mac OS X, Linux, and Unix from <http://qgis.org/>. It is primarily an easy to use vector GIS, including thematic mapping. It can display raster layers under the vectors. It has limited raster analytical capabilities by itself. But with the GRASS plug-in installed, it has access to many of the analytical and raster processing functions of GRASS.

GvSIG: (Generalitat de Valencia, Sistema de Información Geográfica) Full featured GIS and geospatial analysis package (with Sextant plugin). Developed by the Valencian (Spain) government, it is especially strong in accessing web-based spatial data (e.g., via WMS servers). An English version with improved useability has been developed by Oxford Archaeology Digital at: <http://oadigital.net/software/gvsigoade>

GeoDa: (Geospatial Data Analysis) Software designed for interactive spatial data analysis using visual and statistical tools. Using vector GIS data, it combines analytical maps with spatial statistics. Developed here at ASU. It is available at: <http://geodacenter.github.io/index.html>.

R + RStudio, with packages like *sp*, *rgeos*, *tmap*, *raster*, *rgdal*, and *rasterVis*: R is generally thought of as a statistics package, and it is a very good one. But it goes far beyond statistics and is a general-purpose quantitative analysis, visualization, data management, and programming environment. It has very powerful spatial analysis tools and versatile, publication quality cartography. It's main drawback is a lack of interactive visualization. Rstudio is a program that makes R much easier to use. R can be downloaded at: <https://cran.r-project.org> and RStudio is available at: <https://www.rstudio.com/products/RStudio/>

There are R packages to connect with GRASS, QGIS, and ArcGIS. Here are a few sites and a book with more info about using R for spatial analysis and visualization: <https://github.com/Robinlovelace/Creating-maps-in-R>; <http://pakillo.github.io/R-GIS-tutorial/>; <https://cran.r-project.org/web/views/Spatial.html>; <https://us.sagepub.com/en-us/nam/an-introduction-to-r-for-spatial-analysis-and-mapping/book241031>

LibreOffice: An office suite (like Microsoft Office) for Windows, Mac, and Linux. It's database and spreadsheet modules are excellent tools for creating data that can be used in a GIS. It also has a very good drawing module for dressing up maps, along with a good <http://www.r-bloggers.com/r-an-integrated-statistical-programming-environment-and-gis/wordprocessor> and presentation package (like powepoint). It can be downloaded at <http://www.libreoffice.org/>.

Commercial software

ArcGIS GIS: This software is available on the academic network at ASU, in the Anthropology Department computer laboratory. Desktop versions are for Windows only. Students can purchase ArcGIS for a steep discount from the commercial price at ASU. You will need at least three modules for a reasonably complete system (primary ArcView module, Spatial Analyst, and Image Analyst) that includes raster and vector GIS, spatial analysis and modeling, image analysis, and digitizing modules.

Idrisi GIS: This software can be purchased from Clark Labs, Clark University (<http://idrisi.com/>). The program is available for Windows only. Students can purchase the software for a substantial discount over the commercial price. Idrisi includes raster and vector GIS, spatial analysis and modeling, and single-band and multispectral image analysis. The base price includes all modules except digitizing, which is in the separate CartaLinx module. Idrisi can import data from a wide variety of other sources.

Additional Resources:

Website for Neteler and Mitasova book . Short courses, demo data link, examples, and errata. http://www.grassbook.org/data_menu3rd.php

Demo datasets for GRASS: GRASS demo dataset from North Carolina and Spearfish, ND will be used for examples and some assignments. Available for download from the GRASS GIS downloads site (see above). Also available from the Neteler and Mitasova book web site.

Geospatial data on the internet (see Canvas)

COURSE OBJECTIVES, ORGANIZATION, AND GRADING

Students should gain a basic understanding of the concepts underlying the operation of geographic information systems, the analysis of digital images, and the acquisition and use of geophysical data and remotely sensed (i.e., spaceborne and airborne platforms) imagery. Students also will learn how to apply these concepts to real-world data by using GIS, image analysis, and multispectral image analysis software. Finally, students will explore how these software tools can be applied to spatial anthropological data.

Class sessions will generally be divided between a **seminar** discussion section, to review GIS and remote sensing concepts and critically evaluate articles that exemplify GIS and remote sensing methodologies in anthropology, and a “**lab practicum**” section where we will work hands on to try GIS or image analysis techniques in a setting where students can work together and ask questions. In the discussion section, I may start by illustrating some concepts and/or examples.

Readings for each class session include:

- General methodology and application from the Wheatley & Gillings and Conolly & Lake texts. These are references for methods and their applications. We won't plan to discuss these explicitly, but can talk about them in class when there are questions.
- Articles that exemplify GIS use in anthropological research which we will discuss in class. These will be the basis for the seminar-like discussion. You will need to read the assigned articles so as to not feel embarrassed in front of your peers who DID read them.
- I've indicated readings that will be helpful in the lab practicum section and for working on projects. Avoid reading these at your own risk.

Course grades will be based on the following:

1. three short projects that will focus on the application of GIS and image analysis techniques to small, test data sets (45%);
2. the completion and presentation of a conference-quality poster presenting the results of anthropological research employing GIS and/or remote sensing methods (35%); and
3. active participation in class discussion and lab practica (20%).

SYLLABUS AND READING LIST

1/12 Introduction to Spatial Technologies

[WG] chapt. 1 (Archaeology, Space, and GIS).

[CL] chapt. 1, 3

For discussion:

Anemone, R. I., Conroy, G. C., & Emerson, C. W. (2011). GIS and paleoanthropology: Incorporating new approaches from the geospatial sciences in the analysis of primate and human evolution. *American Journal of Physical Anthropology*, 146(S53), 19–46. doi:10.1002/ajpa.21609

Harris, T. M., Corrigan, J., & Bodenhamer, D. J. (2010). Challenges for the spatial humanities: toward a research agenda. In D. J. Bodenhamer, J. Corrigan, & T. M. Harris (Eds.), *The spatial humanities: GIS and the future of humanities scholarship* (pp. 167–176). Bloomington: Indiana University Press.

Howey MCL, Brouwer Burg M (2017) Assessing the state of archaeological GIS research: Unbinding analyses of past landscapes. *Journal of Archaeological Science* 84:1–9. doi: 10.1016/j.jas.2017.05.002

McCoy, M. D., & Ladefoged, T. N. (2009). New Developments in the Use of Spatial Technology in Archaeology. *Journal of Archaeological Research*, 17(3), 263–295. doi:10.1007/s10814-009-9030-1

Lab practicum: introduction to GRASS

Neteler, M., Bowman, M. H., Landa, M., & Metz, M. (2012). GRASS GIS: A multi-purpose open source GIS. *Environmental Modelling & Software*, 31, 124–130. <http://doi.org/10.1016/j.envsoft.2011.11.014>

1/19 Spatial data: rasters, vectors, and attributes

[WG] chapt. 2 (The Spatial Database)

[CL] chapt. 2

For discussion:

Lock G, Pouncett J (2017) Spatial thinking in archaeology: Is GIS the answer? *Journal of Archaeological Science* 84:129–135. doi: [10.1016/j.jas.2017.06.002](https://doi.org/10.1016/j.jas.2017.06.002)

Goodchild, M. F. (2013). Prospects for a Space–Time GIS. *Annals of the Association of American Geographers*, 103(5), 1072–1077. <http://doi.org/10.1080/00045608.2013.792175>

Hill, J. B. (2000). Decision making at the margins: settlement trends, temporal scale, and ecology in the Wadi al Hasa, west-central Jordan. *Journal of Anthropological Archaeology*, 19, 221–241.

Lab practicum: exploring spatial data (topology, attributes, and reports)
[NM] chapt. 1-4

1/26 Building a GIS: overlays, projections, and georegistration

PASS OUT PROJECT 1

[WG] chapt. 3 (Acquiring and Integrating Data).

[CL] chapt 4-5

For discussion:

Bevan A, Conolly J (2004) GIS, Archaeological Survey, and Landscape Archaeology on the Island of Kythera, Greece. *Journal of Field Archaeology* 29:123–138. doi: [10.1179/jfa.2004.29.1-2.123](https://doi.org/10.1179/jfa.2004.29.1-2.123)

Moncla L, Gaio M, Joliveau T, et al. (2019) Mapping urban fingerprints of toponyms automatically extracted from French novels. *International Journal of Geographical Information Science* 33:2477–2497. doi: [10.1080/13658816.2019.1584804](https://doi.org/10.1080/13658816.2019.1584804)

Morehart CT (2012) Mapping ancient chinampa landscapes in the Basin of Mexico: a remote sensing and GIS approach. *Journal of Archaeological Science* 39:2541–2551. doi: [10.1016/j.jas.2012.03.001](https://doi.org/10.1016/j.jas.2012.03.001)

Lab practicum: downloading data and creating a GIS

2/2 Thematic maps: visualizing quantitative information

[WG] chapt. 4

[CL] chapt 7.1-7.2, 12

For discussion:

Flachs A, Stone GD, Shaffer C (2017) Mapping Knowledge: GIS as a Tool for Spatial Modeling of Patterns of Warangal Cotton Seed Popularity and Farmer Decision-Making. *Hum Ecol* 45:143–159. doi: [10.1007/s10745-016-9885-y](https://doi.org/10.1007/s10745-016-9885-y)

Gallotti, R. (2011). GIS and Intra-Site Spatial Analyses: An Integrated Approach for Recording and Analyzing the Fossil Deposits at Casablanca Prehistoric Sites (Morocco). *Journal of Geographic Information System*, 03(04), 373–381. doi:10.4236/jgis.2011.34036

Le Roy M, Rivollat M, Mendisco F, et al. (2016) Distinct ancestries for similar funerary practices? A GIS analysis comparing funerary, osteological and aDNA data from the Middle Neolithic necropolis Gurgy “Les Noisats” (Yonne, France). *Journal of Archaeological Science* 73:45–54. doi: [10.1016/j.jas.2016.07.003](https://doi.org/10.1016/j.jas.2016.07.003)

Lab practicum: thematic maps and spatial analysis

[NM] chapt. 6.0-6.7

2/9 Spatial relationships (vectors and rasters)

***** PROJECT 1 DUE *****

[WG] chapt. 4, chapt. 7 (pp. 147-148).

For discussion:

Bethke B (2017) The archaeology of pastoralist landscapes in the northwestern plains. *American Antiquity* 82:798–815. doi: [10.1017/aaq.2017.44](https://doi.org/10.1017/aaq.2017.44)

Marean, C. W., Y. Abe, et al. (2001). Estimating the minimum number of skeletal elements (MNE) in zooarchaeology: a review and a new image-analysis GIS approach. *American Antiquity* 66(2): 333-348.

Shaffer, C. A. (2013). Gis analysis of patch use and group cohesiveness of bearded sakis (*chiropotes sagulatus*) in the upper essequibo conservation concession, guyana. *American Journal of Physical Anthropology*, 150(2), 235–246. <http://doi.org/10.1002/ajpa.22197>

Lab practicum: overlays and buffers

[NM] chpts 5.1, 5.4, 6.5 (and others of your choosing in chpts. 5 and 6)

2/16 DEMs and terrain analysis

PASS OUT PROJECT 2

[WG] chapt. 5

[CL] chapt 9

For discussion:

Chase A, Weishampel J (2016) Using Lidar and GIS to Investigate Water and Soil Management in the Agricultural Terracing at Caracol, Belize. *Advances in Archaeological Practice* 4:357–370. doi: [10.7183/2326-3768.4.3.357](https://doi.org/10.7183/2326-3768.4.3.357)

Berthaume MA, Lazzari V, Guy F (2020) The landscape of tooth shape: Over 20 years of dental topography in primates. *Evolutionary Anthropology: Issues, News, and Reviews* 29:245–262. doi: <https://doi.org/10.1002/evan.21856>

Mitasova, H., Harmon, R. S., Weaver, K. J., Lyons, N. J., & Overton, M. F. (2012). Scientific visualization of landscapes and landforms. *Geomorphology*, 137(1), 122–137. doi:10.1016/j.geomorph.2010.09.033

Lab practicum: DEMs and terrain analysis

[NM] chapt. 5.0-5.4.2

2/23 Interpolating surfaces from points

[WG], chapt. 6, 9

[CL] chapt 6

For discussion:

Bonnier A, Finné M, Weiberg E (2019) Examining Land-Use through GIS-Based Kernel Density Estimation: A Re-Evaluation of Legacy Data from the Berbati-Limnes Survey. *Journal of Field Archaeology* 44:70–83. doi: [10.1080/00934690.2019.1570481](https://doi.org/10.1080/00934690.2019.1570481)

Clarkson, C., & Bellas, A. (2014). Mapping stone: using GIS spatial modelling to predict lithic source zones. *Journal of Archaeological Science*, 46, 324–333. <http://doi.org/10.1016/j.jas.2014.03.035>

Costa, J. A., Lima da Costa, M., & Kern, D. C. (2013). Analysis of the spatial distribution of geochemical signatures for the identification of prehistoric settlement patterns in ADE and TMA sites in the lower Amazon Basin. *Journal of Archaeological Science*, 40(6), 2771–2782. <http://doi.org/10.1016/j.jas.2012.12.027>

Lab practicum: points and interpolation

[NM] chapt. 6.8-6.10.3

3/2 Territories and movement: Guest presentation by Katherine Crawford

*** **PROJECT 2 DUE** ***

Verhagen P, Nuninger L, Groenhuijzen MR (2019) Modelling of Pathways and Movement Networks in Archaeology: An Overview of Current Approaches. In: Verhagen P, Joyce J, Groenhuijzen MR (eds) *Finding the Limits of the Limes: Modelling Demography, Economy and Transport on the Edge of the Roman Empire*. Springer International Publishing, Cham, pp 217–249.

Accessible at: https://link.springer.com/chapter/10.1007/978-3-030-04576-0_11

Also [WG] chapt. 7, and [CL] chapt 10.1-10.3.1 for reference

For discussion:

Crawford KA (2019) Visualising Ostia's Processional Landscape Through a Multi-Layered Computational Approach: Case Study of the Cult of the Magna Mater. *Open Archaeology* 5:444–467. doi: [10.1515/opar-2019-0028](https://doi.org/10.1515/opar-2019-0028)

Milheira RG, De Souza JG, Iriarte J (2019) Water, movement and landscape ordering: A GIS-based analysis for understanding the mobility system of late Holocene mound-builders in southern Brazil. *Journal of Archaeological Science* 111:105014. doi: [10.1016/j.jas.2019.105014](https://doi.org/10.1016/j.jas.2019.105014)

Supernant K (2017) Modeling Métis mobility? Evaluating least cost paths and indigenous landscapes in the Canadian west. *Journal of Archaeological Science* 84:63–73. doi: [10.1016/j.jas.2017.05.006](https://doi.org/10.1016/j.jas.2017.05.006)

Lab practicum: cost surfaces and least cost paths

[NM] chapt. 5.4.3

3/9 Visibility and perception

[WG] chapt. 10

[CL] chapt 10.3.2-10.4

For discussion:

Bongers J, Arkush E, Harrower M (2012) Landscapes of death: GIS-based analyses of chullpas in the western Lake Titicaca basin. *Journal of Archaeological Science* 39:1687–1693. doi: [10.1016/j.jas.2011.11.018](https://doi.org/10.1016/j.jas.2011.11.018)

Gillings M (2015) Mapping invisibility: GIS approaches to the analysis of hiding and seclusion. *Journal of Archaeological Science* 62:1–14. doi: [10.1016/j.jas.2015.06.015](https://doi.org/10.1016/j.jas.2015.06.015)

Wernke SA, Kohut LE, Traslaviña A (2017) A GIS of affordances: Movement and visibility at a planned colonial town in highland Peru. *Journal of Archaeological Science* 84:22–39. doi: [10.1016/j.jas.2017.06.004](https://doi.org/10.1016/j.jas.2017.06.004)

Lab practicum: viewsheds and line of sight
[NM] chapt. 5.4.4

3/16 Locational modeling and settlement analysis

PASS OUT PROJECT 3

[WG] chapt. 8
[CL] chapt 8

For discussion:

Nicu IC, Miha-Pintilie A, Williamson J (2019) GIS-Based and Statistical Approaches in Archaeological Predictive Modelling (NE Romania). *Sustainability* 11:5969. doi: [10.3390/su11215969](https://doi.org/10.3390/su11215969)

Snitker G, Castillo AD, Barton CM, et al. (2018) Patch-based survey methods for studying prehistoric human land-use in agriculturally modified landscapes: A case study from the Canal de Navarrés, eastern Spain. *Quaternary International* 483:5–22. doi: [10.1016/j.quaint.2018.01.034](https://doi.org/10.1016/j.quaint.2018.01.034)

Lab practicum: using the map algebra with the map calculator
[NM] chapt. 5.4.3-5.5.3

3/23 Geophysical survey: remote sensing of locales. Guest presentation by Wendy Cegielski

For discussion:

Rego, J. P., & Cegielski, W. H. (2014). Gradiometry survey and magnetic anomaly testing of Castros de Neixón, Galicia, Spain. *Journal of Archaeological Science*, 46, 417–427. <http://doi.org/10.1016/j.jas.2014.01.023>

Scudero S, Martorana R, Capizzi P, et al. (2018) Integrated Geophysical Investigations at the Greek Kamarina Site (Southern Sicily, Italy). *Surv Geophys* 39:1181–1200. doi: [10.1007/s10712-018-9483-1](https://doi.org/10.1007/s10712-018-9483-1)

Lab practicum: working with geophysical survey data

3/30 Remote sensing of landscapes

For discussion:

Kempf M (2019) The application of GIS and satellite imagery in archaeological land-use reconstruction: A predictive model? *Journal of Archaeological Science: Reports* 25:116–128. doi: [10.1016/j.jasrep.2019.03.035](https://doi.org/10.1016/j.jasrep.2019.03.035)

Lasaponara, R., & Masini, N. (2012). Investigating Satellite Landsat TM and ASTER Multitemporal Data Set to Discover Ancient Canals and Acqueduct Systems. In B. Murgante, O. Gervasi, S. Misra, N. Nedjah, A. M. A. C. Rocha, D. Taniar, & B. O. Apduhan (Eds.), *Computational Science and Its Applications – ICCSA 2012* (pp. 497–511). Springer Berlin Heidelberg. Retrieved from http://link.springer.com.ezproxy1.lib.asu.edu/chapter/10.1007/978-3-642-31137-6_38

Noviello, M., Ciminale, M., & De Pasquale, V. (2013). Combined application of pansharpening and enhancement methods to improve archaeological cropmark visibility and identification in QuickBird imagery: two case studies from Apulia, Southern Italy. *Journal of Archaeological Science*, 40(10), 3604–3613. <http://doi.org/10.1016/j.jas.2013.04.013>

Parcak SH (2017) GIS, Remote Sensing, and Landscape Archaeology. Oxford Handbooks Online. doi: [10.1093/oxfordhb/9780199935413.013.11](https://doi.org/10.1093/oxfordhb/9780199935413.013.11)

Lab practicum: image enhancement and data fusion
[NM] chapt. 8

Canada Centre for Remote Sensing, "Fundamentals of Remote Sensing" at <http://www.nrcan.gc.ca/earth-sciences/geomatics/satellite-imagery-air-photos/satellite-imagery-products/educational-resources/9309>

4/6 Multi-method analyses of geospatial data

*** **PROJECT 3 DUE** ***

Multispec: Tutorial example in "An Introduction to MultiSpec", available for download at <https://engineering.purdue.edu/~biehl/MultiSpec/tutorials.html>

For discussion:

Abson, D. J., Dougill, A. J., & Stringer, L. C. (2012). Using Principal Component Analysis for information-rich socio-ecological vulnerability mapping in Southern Africa. *Applied Geography*, 35(1-2), 515–524. <http://doi.org/10.1016/j.apgeog.2012.08.004>

Alexakis D, Sarris A, Astaras T, Albanakis K (2011) Integrated GIS, remote sensing and geomorphologic approaches for the reconstruction of the landscape habitation of Thessaly during the neolithic period. *Journal of Archaeological Science* 38:89–100. doi: 10.1016/j.jas.2010.08.013

Ullah, I. I., Duffy, P. R., & Banning, E. B. (2014). Modernizing Spatial Micro-Refuse Analysis: New Methods for Collecting, Analyzing, and Interpreting the Spatial Patterning of Micro-Refuse from House-Floor Contexts. *Journal of Archaeological Method and Theory*. <http://doi.org/10.1007/s10816-014-9223-x>

Lab practicum: unsupervised and supervised classification

4/13 Modeling landscapes and land-use

[WG] chapt. 12
[CL] chapt 7.3-7.5

For discussion:

Barton, C. M., Ullah, I., & Heimsath, A. (2015). How to Make a Barranco: Modeling Erosion and Land-Use in Mediterranean Landscapes. *Land*, 4(3), 578–606. <http://doi.org/10.3390/land4030578>

Contreras DA, Hiriart E, Bondeau A, et al. (2018) Regional paleoclimates and local consequences: Integrating GIS analysis of diachronic settlement patterns and process-based agroecosystem modeling of potential agricultural productivity in Provence (France). *PLOS ONE* 13:e0207622. doi: [10.1371/journal.pone.0207622](https://doi.org/10.1371/journal.pone.0207622)

Franklin J, Potts AJ, Fisher EC, et al. (2015) Paleodistribution modeling in archaeology and paleoanthropology. *Quaternary Science Reviews* 110:1–14. doi: [10.1016/j.quascirev.2014.12.015](https://doi.org/10.1016/j.quascirev.2014.12.015)

4/20 POSTER PRESENTATIONS

Finals week FINAL POSTERS DUE

STUDENT STANDARDS AND ASU POLICIES

Student Standards

Students are required to read and act in accordance with university and Arizona Board of Regents policies, including:

- The Academic Integrity Policy: <https://provost.asu.edu/index.php?q=academicintegrity>
- The Student Code of Conduct: Arizona Board of Regents Policies 5-301 through 5-308: <https://students.asu.edu/srr/code>
- The Computer, Internet and Electronic Communications Policy: <http://www.asu.edu/aad/manuals/acd/acd125.html>

If you fail to meet the standards of academic integrity in any of the criteria listed on the university policy website, sanctions will be imposed by the instructor, school, and/or dean. Academic dishonesty includes borrowing ideas without proper citation, copying others' work (including information posted on the internet), and failing to turn in your own work for group projects. If you follow an argument closely or quote a source directly, you *must* provide a citation to the publication, including the author, date and page number. If you directly quote a source, even in an assignment, you must use quotation marks and a page number citation for each quoted sentence or phrase.

You may work with other students on assignments, however, all work that you do and writing that you turn in must be done independently. If you have any doubt about whether the form of cooperation you contemplate is acceptable, ask the instructor *in advance of turning in an assignment*.

Disability Resources

Students who feel they will need disability accommodations in this class but have not registered with the Disability Resource Center (DRC) should contact DRC immediately. The DRC Tempe office is located on the first floor of the Matthews Center Building. DRC staff can also be reached at: (480) 965-1234 (V) or (480) 965-9000 (TTY). For additional information, visit: www.asu.edu/studentaffairs/ed/drc.

Expected Classroom Behavior - Campus Courses

Arrive on time for class. Excessive tardiness will be subject to sanctions. Under no circumstances should you allow your cell phone to ring during class. Any disruptive behavior, which includes ringing cell phones, listening to your mp3/iPod player, text messaging, constant talking, eating food noisily, reading a newspaper will not be tolerated. The use of laptops (unless for note taking), cell phones, MP3, IPOD, etc. are strictly prohibited during class.

Policy Against Threatening Behavior

All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. If either office determines that the behavior poses or has posed a serious threat to personal safety or to the welfare of the campus, the student will not be permitted to return to campus or reside in any ASU residence hall until an appropriate threat assessment has been completed and, if necessary, conditions for return are imposed. ASU PD, the Office of the Dean of Students, and other appropriate offices will coordinate the assessment in light of the relevant circumstances. For more information please visit <https://eoss.asu.edu/dos/srr/PoliciesAndProcedures> and <https://eoss.asu.edu/dos/safety/ThreateningBehavior>.

Reporting Title IX Violations

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs>.

Policy on Sexual Discrimination

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, <https://eoss.asu.edu/counseling>, is available if you wish discuss any concerns confidentially and privately.

Copyrighted Materials

Students must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.