Online GIS Education

Fatemeh Masouleh, PhD

Department of Construction Sciences
Columbus State Community College, Columbus, OH, USA

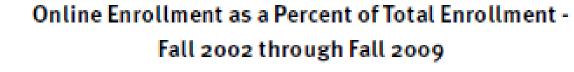
Types of Online Learning

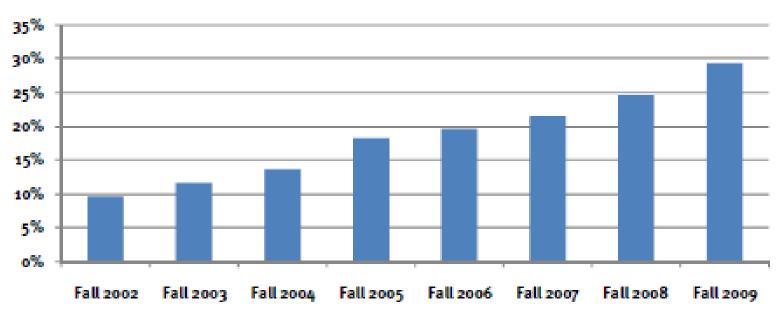
Proportion of Content Delivered Online	Type of Course	Typical Description
ο%	Traditional	Course with no online technology used — content is delivered in writing or orally.
1 to 29%	Web Facilitated	Course that uses web-based technology to facilitate what is essentially a face-to-face course. May use a course management system (CMS) or web pages to post the syllabus and assignments.
30 to 79%	Blended/Hybrid	Course that blends online and face-to-face delivery. Substantial proportion of the content is delivered online, typically uses online discussions, and typically has a reduced number of face-to-face meetings.
80+%	Online	A course where most or all of the content is delivered online. Typically have no face-to-face meetings.

Class Differences: Online Education in the United States, 2010

http://www.usdla.org/assets/pdf_files/2010%20Sloan-C%20Report%20on%20Online%20Education%20Enrollment.pdf

Growth Trend in Learning Online





Class Differences: Online Education in the United States, 2010

http://www.usdla.org/assets/pdf_files/2010%20Sloan-C%20Report%20on%20Online%20Education%20Enrollment.pdf

Why Rapid Growth?

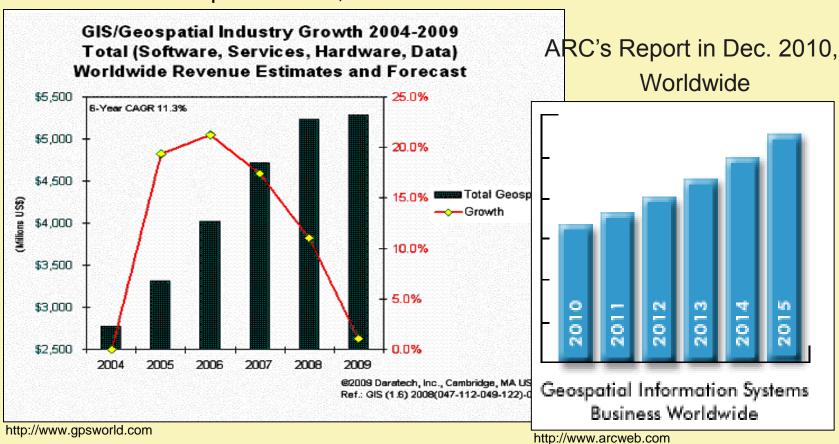
- Significant development in computer and telecommunication technologies
- Innovation in course management systems
 - Blackboard, Angel
- Expansion of web conferences and online meetings
 - Elluminate Live, WebEx
- Benefits for students
 - "Different time and different place" vs. "same time and same place"
 - Flexible schedule
 - Studying at multiple schools at once
 - Economic benefits

Why Rapid Growth?

- Economic benefits for both educational institutions and companies
- Economic downturn
 - Poor economic times are good for higher education!
- Predicted growth in job markets
 - Health Care
 - Advanced Manufacturing
 - Information Technology
 - Transportation
 - Military
 - Geospatial Technology

Geospatial Market Outlook

Daratech's Report in 2008, Worldwide



Universities/Colleges with Online GIS Programs

ESRI's Online Database of Academic GIS Programs

The database allows a school to indicate which ESRI software products they are teaching with. The fact that a school teaches with ESRI products does not constitute an endorsement of the product. Some schools teach with a large number of software packages from different vendors. Many universities choose to emphasize the theory and application of geographic information science rather than just the technology.

Search for a GIS Program			
(Search by any of all fields)			
Keywords			
City/Province			
U.S. State	Any State	*	
Zip/Postal Code			
Country	Any Country		•
	ogram in GIS Program in GIS al Campus	ESRI Product ArcInfo ArcView ArcEditor ArcGIS Se ArcIMS ArcPad	erver
	S	earch	

Other tools

Enter your University in our Search System | Update your University Information | Suggestions

ESRI's Online Database of Academic GIS Progra

Search Resu	lts								
Your search re	esulted in 85 match	Cedar Rapids, IA	<u>Kirkw</u> Science	Hattiesburg,		ege (Agriculto of Southern Miss			
Location Adelaide,	Program Details Adelaide Universit	Chestertown,	Wash	MS Henderson, NV	Community	Minneapolis, MN	Saint Mary's Uni (Minneapolis)	versity of Minnesota	
South Australia	Adelaide Offiversic	Clyde, NC	<u>Hayw</u>	Hyderabad, AP	Vasavi Coll	Mumbai,	University of Arl	Pinarai da CA	Nesources)
Anchorage, AK	University of Alask	Columbus, OH	Colum	Jacksonville, AL	Jacksonville	Maharashtra Nanaimo, BC	Vancouver Islan	Riverside, CA Ruston, LA	University of California F Louisiana Tech Universit
Ankara, Ankara	Hacettepe Univers	Cookeville, TN	Tenne	Kiel,	Christian-A	Newark, DE Newark, DE	University of De	St. John's, NF	Keyin College (Canada)
Athens, GA	University of Geor	Corvallis, OR	Orego	Scheleswig- Holstein Kingsville, TX	(Germany) Texas A&M	Niagara-	Administration) Niagara College	Stafford, TX	Houston Community Co
Aurora, CO Bakersfield,	American Sentinel California State Ur	De Kalb, IL	North Unive		Oregon Ins	On-The-Lake, ON North York,	York University	Toowoomba, Queensland	University of Southern ((Australia)
CA Bakersfield,	Bakersfield Colleg	Debrecen, H-B	<u>onive</u>	La Crosse, WI	University	ON O'Halloran	Onkaparinga Ir	Toronto, ON	Ryerson Polytechnic Uni
CA Baltimore, MD	Johns Hopkins Uni	Denver, CO	Metro	Lanoning, in	Lansing Co			Tyler, TX	University of Texas at T
Big Rapids,	Ferris State Unive	Denver, CO	Unive	INIM	New Mexic	Palmerston North,	Massey Univers	Tyler, TX	Tyler Junior College
MI Big Stone	Mountain Empire (Denver, CO Elko, NV	Great	Leeds, West Yorksire London,	University	Manawatu Pensacola, FL	University of W	University Park, PA	Pennsylvania State Univ
Gap, VA Bismarck, ND	Bismarck State Co	Elmhurst, IL	<u>Elmhu</u>	London	City Univer	Perth, Western	Curtin Universit	Uppsala, SE	SLU, Swedish University Sciences
Bo, Telemark	Telelamrk College	Emporia, KS	Empo ITC In	London London, na	Birkbeck, U	Australia Pittsburgh, PA	Carnegie Mello	West	University of Hartford
Brandon, Manitoba	Assiniboine Comm	Enschede, na	Geo-I Obser	Los Angeles, CA	University	Pocatello, ID	Idaho State Un	Hartford, CT	Monmouth University
Burnaby, BC	British Columbia Ir (Canada)	Forence, AL	Unive	Manchester, Manchester	Salford Uni	Gauteng	University of Pr	West Long Branch, NJ	Morimoduli Orliversity
		Fredericton, NB	<u>Unive</u>	rsity of New	Brunswi	Raleigh, NC	North Carolina Resources)	Wilkes-Barre, PA	Wilkes University
		Gainesville,	<u>Unive</u>	rsity of Flori	da (Soil 8	Water Scie	nce) h	Winninea MR	University of Winninea

http://edcommunity.esri.com/universityprograms/onlinedb.cfm

GIS Certificate and Masters Prog

GIS Certificate and Masters Programs

last updated January 09, 2011

The following information is a simple collection of known website: No endorsement or evaluation of these programs is implied by their inclusion

Note that there are also Bachelor's programs in GIS, but they are not include

Index

- US on-campus masters programs
- · US on-campus certificate programs
- Canadian on-campus certificate and masters programs
- Other country on-campus certificate and masters programs
- · Distance learning programs
- · Related certificates
- · GIS education needs surveys
- IMPORTANT April 2003 summary of Diploma, Certificate and Degree progra
 world prepared by Brian Berdusco. <u>Full report</u> from 2003 MSc thesis (zip file of
 document) and <a href="https://html.ncb.nlm.nc
- See also lists of links maintained by:
 - GISOnline Graduate Courses
 - o GeoCommunity

http://www.ucgis.org/priorities/education/GIS_Cert+Masters_Prog/certificates.htm#DistanceLearning

Distance learning/On-line programs

NOTE: For more information on individual graduate courses an

Birkbeck College, London UK

- http://www.bbk.ac.uk/Departments/Geography/online.htm

California State University Bakersfield, USA

- http://academic.csub.edu/~vkohli/giscert.html

Charles Sturt University, Australia

http://clio.mit.csu.edu.au/gis

Curtin University, Australia

http://www.cage.curtin.edu.au/gis/distance.htm

University of Denver

- Certificate of Advances Studies in Geographic Information Sy
- Masters Degree in Geographic Information Science
- http://www.du.edu/gis/

Elmhurst College, Elmhurst IL - Certificate in GIS (hybrid online

- http://www.elmhurst.edu/~geo/GISCertProgram.html

ESRI Virtual Campus

- http://campus.esri.com/

Johns Hopkins University - post-baccalaureate Certificate in Ge

- http://advanced.jhu.edu/academic/environmental/gis/

University of Leeds - postgraduate programs in GIS

- http://www.geog.leeds.ac.uk/odl/

University of North Dakota - Graduate Certificate in GIScience

- http://distance.und.edu/degree/?id=geoinfoscience2



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FAQs

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Master of Geogr **Systems**

The master of geographic in degree is designed for worki leadership positions in the fi world-class master's degree this 35-credit program of stu your own schedule, where a for you.

Learn from Respecte

Interact online with attentiv nation's top-rated graduate information systems.

GIS Professional Dev

Penn State offers more than courses in which geospatial fulfill continuing professional Please visit our GIS profess more information.

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Gain firsthand experience w and techniques available in information systems today.

Course Schedule **Professional Development**

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FACULTY

FAQs

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Students in the MGIS program must take 6 credits at the 500 level and a minimum of 12 additional credits at the 500 level or above.

PRINT

Required Courses (23-26 credits)									
GEOG 482	The Nature of Geographic Information Orientation to the properties of geographic data and the practice of distance learning.	2 credits							
GEOG 483	Problem Solving with GIS How geographic information systems facilitate data analysis and communication to address common geographic problems.	3 credits							
	Prerequisite: GEOG 482								
GEOG 484	GIS Database Development Database design, creation, and maintenance, and data integration using desktop GIS software.	3 credits							
	Prerequisite: GEOG 483								
GEOG 583	Geospatial System Analysis and Design Systematic approach to requirements acquisition, specification, design and implementation of geospatial information systems.	3 credits							
	Prerequisite: GEOG 484								
GEOG 584	Geospatial Technology Project Management Principles of effective project management applied to the design and implementation of geospatial information systems.	3 credits							
GEOG 586	Choosing and applying analytical methods for geospatial data, including point pattern analysis, interpolation, surface analysis, overlay analysis, and spatial autocorrelation.								
	Prerequisite: GEOG 485, GEOG 486, or GEOG 487								
GEOG 596A	Individual Studies — Peer Review Preparation and presentation of a proposal for an individual capstone project.	3 credits (may be repeated up to 9 credits)							
GEOG 596B	Individual Studies — Capstone Project Preparation and delivery of a formal professional presentation of the results of an individual capstone project.	3 credits (may be repeated up to 9 credits)							

Prepare for GISCI Certification

cutting-edge GIS skills to



http://www.worldcampus.psu.edu/MasterinGIS.shtml

University of Southern California USC | DANA and DAVID DORNSIFE COLLEGE Geographic Information Science and Technology Home Program Overview Admission Accreditation GIST Master's Program Program Overview GIST Certificate Program Course Descriptions GPS/GIS Field Techniques

The USC Dana and David Dornsife College of Letters, Arts and Sciences is the largest and oldest of the USC schools and is the academic heart of USC. USC Dornsife offers a wide variety of degrees and professional certificates, including two innovative programs in Geographic Information Science and Technology (SIST), the GIST waster of Science and the GIST Graduate Certificate Program. These GIST graduate programs are offered in an online format to mesh with the demanding schedules of working professionals and resident US graduate students for whom campus-based studies are not an option.

About USC

In the past decade, Geographic Information Science (GIS) has grown exponentially. GIS are in use throughout the world and the demand for professionals trained in their use is expanding in the United States, Canada, much of Europe and parts of Asia. Currently, the number of people with expertise in GIS cannot possibly meet the surge coming from government, non-profits and the private marketplace. Recognizing this demand, USC Dornsife established the USC GIS Research Laboratory in 1996. It was designed to support the research needs of USC faculty and the GIS needs of graduate students. In 1998, USC Dornsife developed an online graduate certificate program in GIS as a collaborative enterprise with the UNIGIS International Network (MANAN Unidic not)

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FAQ

Fill out the form below to receive your free program brochure.

First Name

Program Select One

Degree Earned Bachelors

Last Name

Email Country United States -Zip Code

Download Your Brochure

Why a GIST Degree?

Degree Outcomes

Program Faculty

Dean's Message

Director's Message

http://gis.usc.edu/program-overview/



Enjoy the journey.

Advanced Diploma in GIS Applications



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search

viu.ca > Instructional Dep

ADGISA

- Program Courses
- Admission Requirements
- Equipment and T

[+]Fees

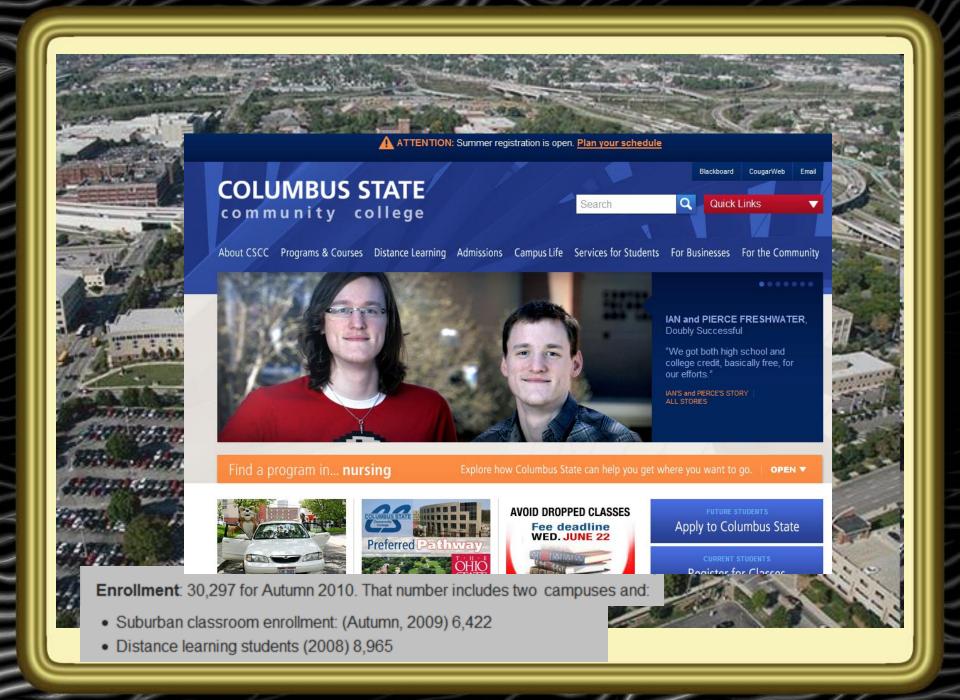
- Start Date and Application Dead
- How to Apply
- Information for International Students
- Practicum Information
- Graduation
 Requirements

l+1 Fees

- Start Date and Application Deadline
- How to Apply
- Information for International Students
- Practicum Information
- Graduation
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- Career Opportunities
- About the Instructors
- Frequently Asked Questions
- What Students Say
- Explore GIS
- [+] About Nanaimo
- GIS Information Sheet: Face To Face Fall

outcomes are the same. Each course is worth 3 credits, with the exception of GEOG 591 - GIS Applications Project - which is worth 9 credits.

Face-to-Face	Online
GEOG 501	GEOG 501
Foundations of Geographic Information	Foundations of Geographic Information
Systems	Systems
GEOG 511	GEOG 511
Geodatabases	Geodatabases
GEOG 521	GEOG 521
General Spatial Analysis	General Spatial Analysis
GEOG 523	GEOG 523
Advanced Applied Spatial Analysis	Advanced Applied Spatial Analysis
GEOG 531	GEOG 524
Visual Programming for GIS	Remote Sensing and Digital Image Processing
GEOG 581 Management Issues In GIS	GEOG 525 Global Positioning Systems (GPS) and Survey Analysis
GEOG 591	GEOG 530
GIS Applications Project: Practicum	Programming Foundations
GEOG 593	GEOG 531
Internet GIS	Visual Programming for GIS
	GEOG 581 Management Issues In GIS
	GEOG 593 Internet GIS



GIS Certificate Online Courses at CSCC

CAREER AND TECHNICAL PROGRAMS Effective Autumn Quarter 2010	,			PLAN OF STUD GIS Certificate	Y 			NameStudent #Date EnteredAdvisor		_ _ _ _
FIRST QUARTER		CR	GR	SECOND QUARTER		CR	GR	THIRD QUARTER	(R GI
GEOG 207 Introduction to GIS GIS 100 Acquiring GIS Data*	B			GIS 251 GIS Software I XXX XXX Technical Elective ² XXX XXX Technical Elective ²	T T T	3 3 3		GIS 253 GIS Software II GIS 280 Advanced GIS Applications or GIS 290/GIS 291 Seminar for GIS/GIS Practicum*:	T T	3 4
TOTAL		8		TOTAL		9		TOTAL		7-8
FOURTH QUARTER		CR	GR	FIFTH QUARTER		CR	GR	SIXTH QUARTER	(R GI
TECHNICAL ELECTIVES		CF	GF	CERTIFICATE REQUIREMENTS						
Must take at least one technical electives from GIS 275 Planning and Implementing GIS GIS 277 Introduction to ArcIMS GIS 278 Introduction to Programming for GIS 279 Introduction to GIS Database GIS 281 Introduction in ArcGIS Server GIS 299 Special Topics in GIS	GIS	T T T T T	3 3 3 3 3 1-5	TOTAL CERTIFICATE CREDIT HOURS	24-2	5 hot	ırs	Faculty Advisor: Andrea Passons, Coordinator		
Must take at least one technical elective from: GIS 283 GIS in Emergency Management GIS 284 GIS in Health		T T T	3 3 3				\dashv	Department DH 205	287-5	030

http://www2.cscc.edu/academics/departments/geographic-information-systems/

GIS Associate Degree Online Courses at CSCC



Columbus State Community College

PLAN OF STUDY

CAREER AND TECHNICAL PROGRAMS

Effective Autumn Quarter 2010

GEOGRAPHIC INFORMATION SYSTEMS

Name
Student # _____
Date Entered ____
Advisor ____

FIRST QUARTER		CR	GR	SECOND QUARTER		CR	GR	THIRD QUARTER	(CR	GR
GEOG 207 Introduction to GIS GIS 100 Acquiring GIS Data MATH 148 College Algebra CIT 103 Computer Concepts and Logic TOTAL	B T B B	5 3 5 3		ENGL 101 Beginning Composition GEOG 280 Elements of Cartography GIS 105 Elements of Photogrammetry GIS 110 Georeferencing & Editing GIS Data GIS 251 GIS Software I TOTAL	G B T T	3 5 2 2 3 15		ENGL 102 Essay and Research MATH 135 Elementary Statistics ARCH 112 Construction Draft - CAD 1 GIS 253 GIS Software II HUM XXX HUM 111, 112, 113, 151, 152 or 224 TOTAL	G B T T G	3 5 2 3 5	
FOURTH QUARTER		CR	GR	FIFTH QUARTER		CR	GR	SIXTH QUARTER	(CR	GR
COMM 105 Speech or COMM 110 Conference and Group Discussion COMM 204 Technical Writing CIT 233 Expert Access SURV 140 Surveying and GPS or SURV 141 Basic Surveying XXX XXX Technical Elective TOTAL	G G B T	3 3 3 4 3		GIS 203 Remote Sensing of Environment GIS 280 Advanced GIS Applications GEOG 240 World Economic Geography XXX XXX Technical Elective TOTAL	T G T	4 4 5 3		GIS 260 Introduction to Spatial Analysis GIS 279 Introduction to GIS Databases GIS 291 GIS Practicum GIS 290 Seminar for GIS XXX XXX Technical Elective TOTAL	T T T T	4 3 4 1 3	
TECHNICAL ELECTIVES	TECHNICAL ELECTIVES CR GR GRADUATION REQUIREMENTS										
Must take at least two technical electives from: GIS 275 Planning and Implementing GIS GIS 277 GIS 278 Programming for GIS GIS 281 Introduction to ArcIMS GIS 281 Introduction in ArcGIS Server GIS 299 Special Topics in GIS Must take at least one technical elective from: GIS 283 GIS in Emergency Management GIS 284 GIS in Business GIS 285 GIS in Unitities CMGT 221 Building Information Modeling	T T T T	3 3 3 1-5 3 3 3		G = General Education B = Basic Education T = Technical Education Total General Education Total Basic Education Total Non-Technical Total Technical TOTAL CREDITS	26 48 48	hour hour hour hour	5	Faculty Advisor: Andrea Parsons, Coordinator 6: Department DH 205 6: Dick Bickerstaff, Chairperson 6: Specialization tracks available – See Catalo	14-28 14-28	7-503	80

CM/4/13/10GIS/Geographic Information Systems Tech

GIS.AAS

Required Skills



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- advantages & challenges
- technical requirements
- required skills
- readi assessment
- ▶ f.a.q.
- registration

After You've Registered

Resources

Haln

Home » Getting Started » Required Skills

Required Skills in Distance Learning

Distance Learning presents a whole new series of advantages

Technical Skills

Time Management

Communication

Reading

Note Taking

Assertiveness

Technical Requirements

Technical Requirements for Web-based Courses



Web-based Courses

Web-based Component Requirements

For courses, you need to have:

- A Computer that is less than 3 years old
- Internet Access
- A compatible Internet Browser

Download

Microsoft PowerPoint Viewer 98 for Macs	U
Microsoft Excel Viewer 2003	
Microsoft PowerPoint Viewer 2003	<u> </u>
Microsoft Word Viewer 2003	_
Microsoft PowerPoint Animation Viewer	<u> </u>
SnapShot Viewer for Microsoft Access	
Open Office	<u> </u>

Technical Requirements



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- textbooks
- usernames & passwords
- student mail
- blackboard
- 1st day of the guarter
- tips for success

Resources

Home » After You've Registered » Blackboard

Blackboard

All web-based, I Blackboard, Coli

http://password

All course secti want to supplen

Blackboard Orio

Related Links

- Blackboard
- Blackboard Learn Orientation
- Blackboard Help
- Usernames and Passwords
- IT Support Help Desk -

(614) 287-5050 **(**

Columbus State nas created a seu-p participate in a discussion board, ar /Orientation9/.

Technical Requirements

Letter mailed to students on the first day of the quarter

Spring Quarter, 2011

Dear GIS 260 Students.

Welcome to this course! I have enclosed ArcGIS Desktop - ArcInfo 10 software from ESRI for your use in this course.

IMPORTANT NOTES:

- Included in this mailing are instructions for installation. Please follow them step by step. For those of you who have installed the software prior to this, it is important to note that you will need to register your software first.
- If you have a previous version of this software, you will want to uninstall that software before installing this version.
- There is a second DVD of tutorial data. Please do a complete installation of that as well. Use the default location.

There will be pdf lectures available to you during the quarter. You must use the lectures provided on Blackboard as the primary source. If you would like to print copies of the lectures and assignments out, feel free to come to campus and use any of our computer labs to do this.

You will be required to buy the "GIS Tutorial 2 – Spatial Analysis Workbook updated for ArcGIS 10, by David W. Allen, 2nd Edition, Esri Press, 2010, 340 pages, ISBN: 9781589482586 for this course. Please VERIFY the edition is correct and that the ISBN is exactly the same. Please note that you do not need to install the software in the back of this book, please use the software provided. If you have software already installed, I would uninstall it and install the software provided. You can purchase the book from the CSCC bookstore, at Amazon or at ESRI Press. We work with this book within a week or two into the course, so please do not wait until the last minute to get it.

Here is the link for Amazon:

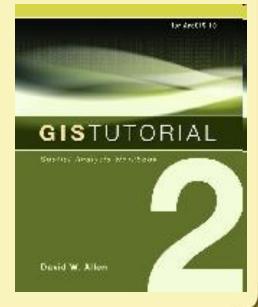
http://www.amazon.com/GIS-Tutorial-Spatial-Analysis-Workbook/dp/1589482581/ref=sr_1_1?s=books&ie=UTF8&qid=1299874187&sr=1-1

This class takes a lot of work and we get off to a fast start. Expect to work at least 10 hours a week on class material. Please feel free to contact me during the quarter whenever you need help – that is what I am here for. I look forward to working with you. Have a great quarter!

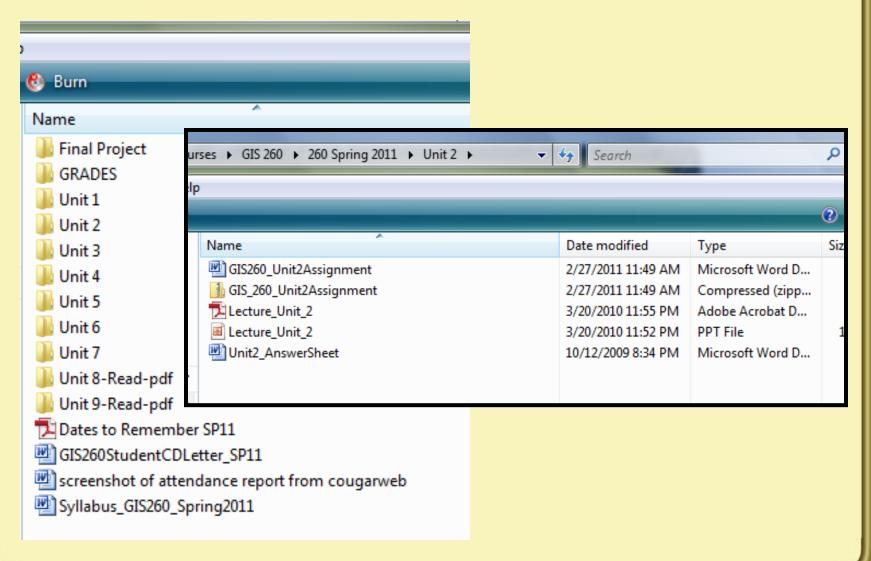
Dr. Fatemeh Masouleh fmasoule@cscc.edu

Adjunct Instructor, Geographic Information Systems





Course Materials



Lets take a look at Blackboard

Online Meetings & Desktop Share; WebEx

