



Teaching Information Literacy Through Senior Projects

Presented at the 7th Annual Georgia Conference on Information Literacy, Savannah, GA

Lisha Li

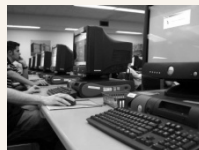
Library and Information Center

Georgia Institute of Technology

Oct. 1, 2010

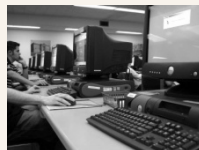
Outlines

- Background
- Initial collaboration
- Information literacy workshop
 - Design – ACRL IL Standards
 - Implementation
 - Feedback and Improvements
 - Assessment/Evaluation
- Workshop outcomes
- Discussions and conclusions



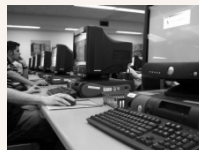
CEE Background

- CEE: School of Civil and Environmental Engineering (1896)
- Civil and environmental engineering deals with the *design, construction and maintenance of the physical and naturally built environment*, including structures and materials, transportation of people and goods, air and water quality, natural materials in engineered systems, sustainable resource management, and environmental biotechnology, etc.



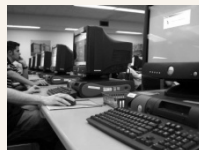
CEE Background

- Total Full Time Faculty: 81
- Total Students (Fall 2009): 1,190
 - Undergraduate: 857
 - Graduate: 333



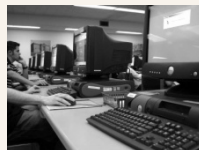
Course Background

- Course - CEE 3000: Civil engineering systems
- Introduced in 1999.
- Description: "...introduces students to a sustainable engineering approach for *planning, design, implementation, operation and renewal* of civil engineering systems."
- Required senior course (3 credit hours)
- 2 classes offered each semester with 60 - 65 students in each class (- mostly CEE, some Arch, IE, ME, BMED)

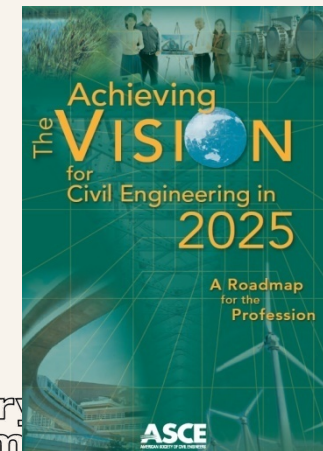
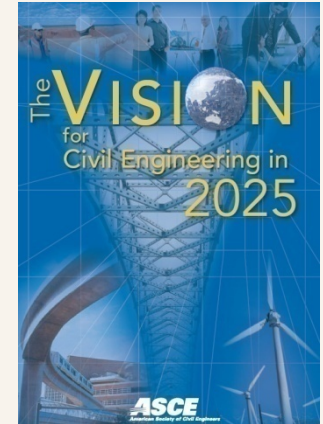


Course Background (cont'd)

- Multidisciplinary perspective (technical, economic, environmental and socio-political)
- Group project based (~3-5 students in each group)
- Bibliography of information and data sources
- Project report and team presentation
- Course evaluation for Project Report: 20%



ASCE* Vision for Civil Engineering in 2025



(*ASCE: American Society for Civil Engineers)

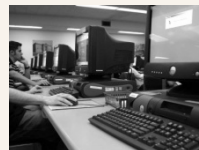
Course Objectives

- 4 Modules:
 - Sustainable engineering and the system approach
 - Mathematical tools and systems performance analysis
 - Economic decision-making tools and projects evaluation
 - Project presentations
- 2 Objectives
 - Engineering communication
 - Library information skills



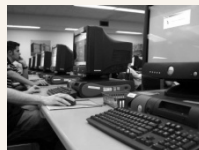
Projects Examples

- Sears Tower vs. Petronas Towers
- Dallas Fort Worth Airport vs. Atlanta Hartsfield-Jackson Airport
- Itapu Dam vs. Hoover Dam
- Atlanta area vs. Chicago area transportation systems
- Port of Rotterdam vs. Port of Singapore
- Georgia Dome vs. Roman Coliseum
- Japan's Shinkansen vs. France's TGV

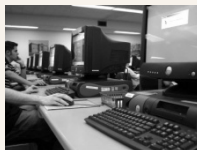
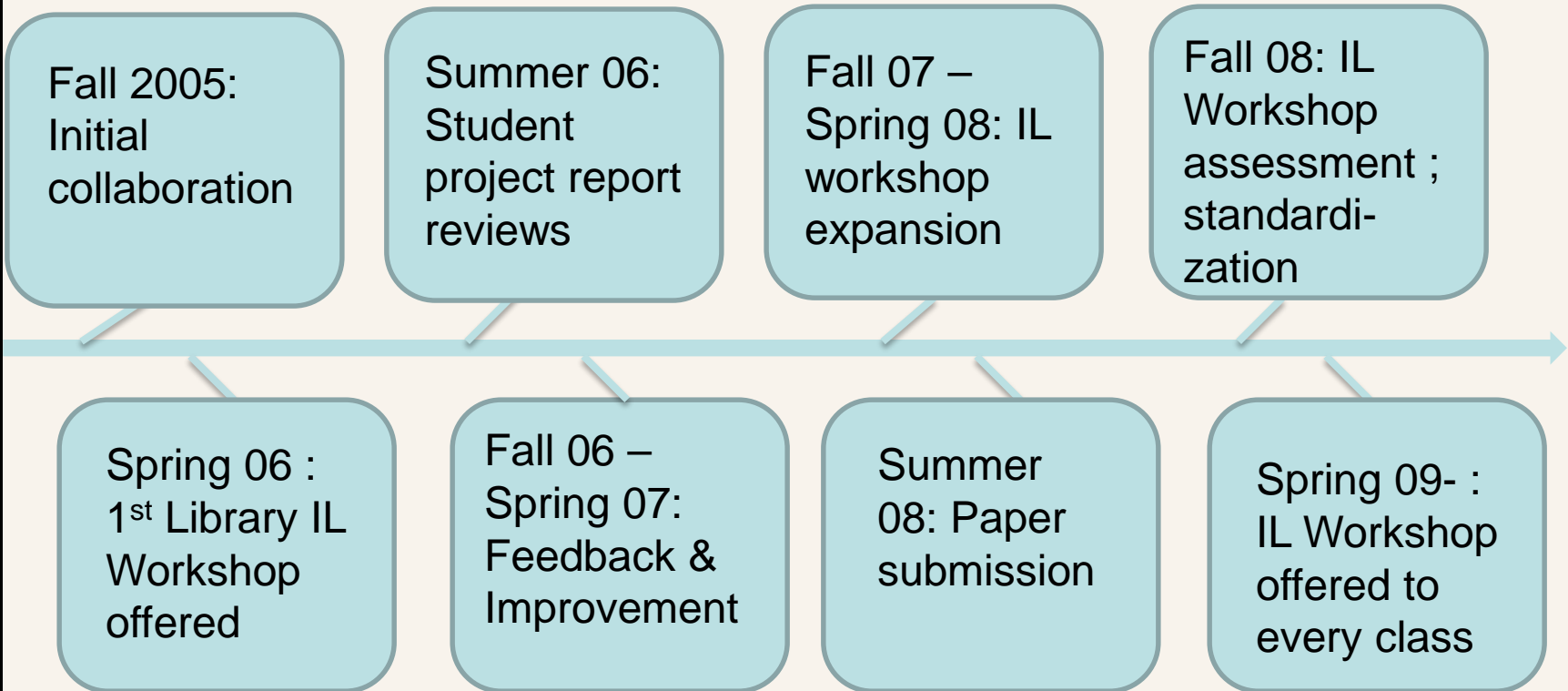


Comparative Systems Analysis

- Characterizing the systems
 - Purpose, background, functional characteristics, linkages (environmental, economic, social, political)
- Comparing the systems
 - Performance, environmental impacts, benefit/cost, social/political analysis
- Evaluating the systems
 - Identification of better system with justification, recommendations for improvement, limitation of analysis



Workshop Development Time Line

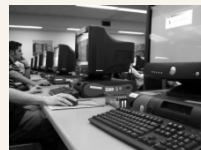
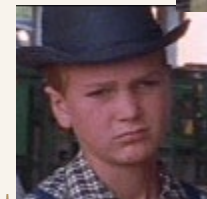


Initial Collaboration with Faculty

- It all started with...
 - *Journey to Planet Earth (DVDs)*



[Rivers of Destiny](#)
[The Urban Explosion](#)
[Land of Plenty, Land of Want](#)
[On the Brink](#)
[Seas of Grass](#)
[Hot Zones](#)
[Future Conditional](#)
[The State of the Planet](#)
[State of the Planet's Wildlife](#)
[State of the Ocean's Animals](#)
[State of the Planet's Oceans](#)



ACRL IL Standards for Sci-Tech

- Information Literate students:
 - determines the nature and extent of the information needed;
 - acquires needed information effectively and efficiently;
 - critically evaluates the procured information and its sources, and as a result, decides whether or not to modify the initial query and/or seek additional sources and whether to develop a new research process;
 - Understands the economic, ethical, legal, and social issues surrounding the use of information and its technologies and either as an individual or as a member of a group, uses information effectively, ethically, and legally to accomplish a specific purpose;
 - understands that information literacy is an ongoing process and an important component of lifelong learning and recognizes the need to keep current regarding new developments in his or her field.

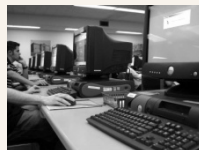


IL Workshop Focus

Focus	Information Knowledge and Skill Sets
Information Structure	<p>Understand how information is created, disseminated and organized</p> <ul style="list-style-type: none">-Know the scholarly publication process-Know the concepts of database, indexes, thesaurus and classification systems
Information Access	<p>Effectively apply information retrieval skills and know where and how to obtain useful information</p> <ul style="list-style-type: none">-Be familiar with resources available and their features-Form effective search strategies and apply useful search tips-Access full text and obtain materials through interlibrary loan services
Information Integration	<p>Critically evaluate information and its sources and incorporate information effectively into their projects</p> <ul style="list-style-type: none">-Apply information evaluation criteria-Use styles and citation management tools-Be aware of copyright and fair use issues

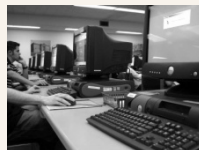
IL Workshop Setting

- Held at Homer Rice Center – a library classroom with 32 student computers, and 1 instructor computer with data projector
- Offered as an one time session outside the course meeting time
- Provided two identical sessions on different day/time for student to choose from through registration
- Opened follow-up consultations sessions/hours



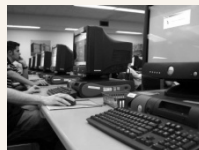
IL Workshop Layout & Follow up Session

- Information resources:
 - 30 min.
- Information access and integration demo:
 - 30 min.
- Hands-on exercises:
 - 30 min.



Information Structure/Resources

- Overview of scholarly publishing process, databases, indexes, thesaurus
- Major databases for civil and environmental engineering
- Databases in broader scope: social, economic, and public policy aspects



Resources by Type of Project

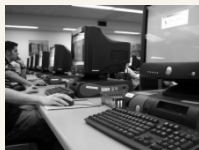
CEE 3000 Project Research Resources				
Project Type	Major Resources	Additional Resources	Government Sponsored Research	News
Airports	Avery Index	Academic Search Complete	NTIS	LexisNexis
	ASCE Database	Web of Science	TransStats	ProQuest
	TRIS	ABI/INFORM Complete		
	Compendex	ScienceDirect		
Buildings, Cities	Avery Index	Academic Search Complete	NTIS	LexisNexis
	Art & Architecture Complete	Web of Science		ProQuest
	Compendex	ABI/INFORM Complete		
	ASCE Database	ScienceDirect		
	Urban Studies Abstracts	Environment Complete		
Flood Control	ASCE Database	Academic Search Complete	DTIC	LexisNexis
	Compendex	ScienceDirect	NTIS	ProQuest
	GeoRef	ABI/INFORM Complete		
	Web of Science	Environment Complete		
Hydraulic Structures	ASCE Database	Academic Search Complete	NTIS	LexisNexis
	Compendex	ScienceDirect	DTIS	ProQuest
	Avery Index	ABI/INFORM Complete		
	GeoRef	GreenFILE		
	Web of Science	Environment Complete		



Information

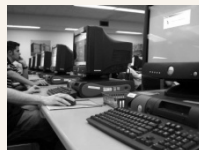
Structure/Resources (cont'd)

- CrossSearch features
- Customization features
- Advanced databases search features
 - Advanced search
 - Save search
 - Export records



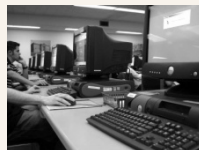
Information Access

- Brain storm keywords and forming search strategies - using examples from previous classes
- Refine search results using facet feature
- Review, select, and export results
- Full text article access
 - Through SFX;
 - print;
 - ILLiad



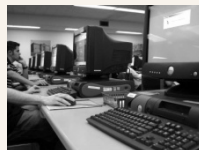
Information Integration

- Information evaluation criteria
- Annotated bibliographies
- Citation styles (ASCE, APA, MLA, Chicago)
- Citation management tools (EndNote)
- Copyright and fair use issues



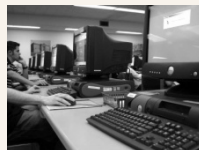
Hands-on Exercises

- Locate books
 - GIL/GIL Universal catalogs
 - WorldCat
- Search and access journal articles
 - Database searches for project topics
 - Electronic journals and SFX
- Locate Technical Reports
 - Print reports
 - Reports on microform
 - Environmental Impact Statements (EIS) documents



Follow-up

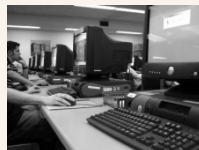
- E-mail questions and answers
- Consultation sessions by request (held at consultation area for 1-3 students, or a library class room for more than 3 students)
 - Project specific issues
 - Resource specific questions
 - Search strategies and search terms
 - Obtaining specific items
 - Bibliographies



Evaluation and Assessment

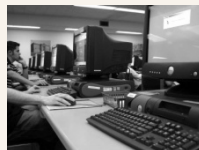
- Short surveys after classes
- Informal feedback from students and faculty
- Formal assessment through CETL*
- Email responses
- Observation through follow-up consultation

* CETL: Center for the Enhancement of Teaching and Learning, GA Tech



After Class Survey

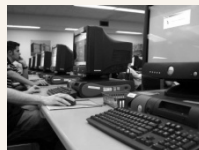
- This workshop provides me with enough resources to start my search of information for my project.
 - Strongly agree 64%
 - Agree 36%
- This workshop teaches me necessary information skills to conduct my research using library resources.
 - Strongly agree 91%
 - Agree 9%



Suggestions and Improvement Made

- For future improvement of the similar workshop, I would recommend:
 - Add more international resources (-added)
 - Use a microphone
 - Offer more sessions * (- two sessions offered for each class)

(* 39 students showed up in class one time)



Registration (Survey Monkey)

1. Please indicate your preferences for the CEE 3000 Library Workshop.

Add Question Here

Edit Question Move Copy Delete

1. Please enter your name:

Add Question Here Split Page Here

Edit Question Move Copy Delete

2. Please enter your project name:

Add Question Here Split Page Here

Edit Question Move Copy Delete

3. Please enter your email address:

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Edit Question Move Copy Delete

4. Please enter your group number:

Add Question Here Split Page Here

Edit Question Move Copy Delete Add Question Logic

5. Which session are you able to attend?

Tue., Sept. 22 at 4 p.m. only

Wed., Sept. 23 at 4 p.m. only

Either Tue., Sept. 22 at 4 p.m. or Wed., Sept. 23 at 4 p.m.

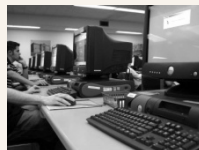
Neither date/time works with my schedule. I will request a make-up session for another time.

Add Question Here Split Page Here

Edit Question Move Copy Delete

6. Please list one thing you would like to get out from this workshop:

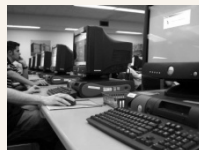
Add Question Here



Formal Assessment Through CETL *

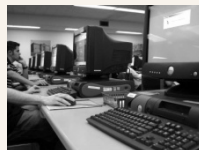
- 2008 Class of 1969 Teaching Fellowship
- Class Observation by the Fellowship Program Director and her assistant
- After workshop dialogue/discussion with students
- Feedback collected

* CETL: Center for the Enhancement of Teaching and Learning



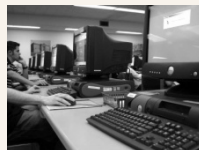
Feedbacks from CEE 3000 Students

- *What helps you learn in this library workshop?*
 - The students unanimously agreed that the following techniques/tools help them learn:
 - 1) the research guide web site;
 - 2) the hands-on time for learning;
 - Many students agreed that the following help them learn:
 - 3) PowerPoint slides;
 - 4) the handouts
- *What changes in this library workshop would improve your learning?*
 - Speak louder* (All students agreed with this except the ones in the front row.)
 - Provide more information about citations (styles)
 - Explain about preparing bibliography



Feedbacks from CEE 3000 Students (cont'd)

- *What is the most important feedback you want your instructor to hear?*
 - “Thank you! We appreciate you taking us through this information.”
 - “This was a good workshop because now we know what resources we have.”
 - “Integrating practice time and coaching into the PowerPoint presentation would be very helpful.”

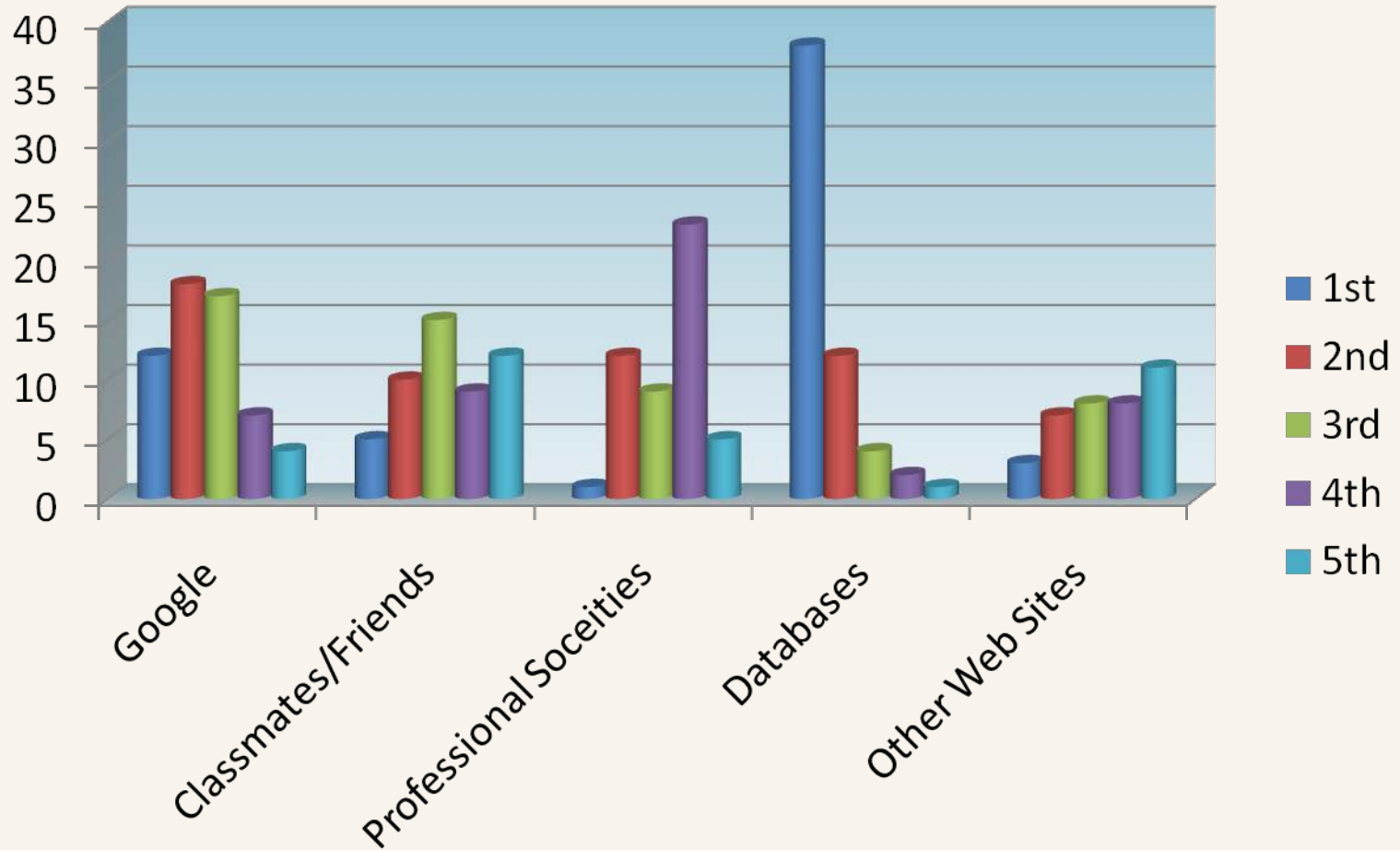


Informal Responses

- “It was very helpful.” – students
- “It was worth it” - students
- “Your slides were very informative and helpful.” – students
- “Glad to see more quality references used by students.” - faculty
- “Overall quality improvement (of project reports).” – teaching faculty



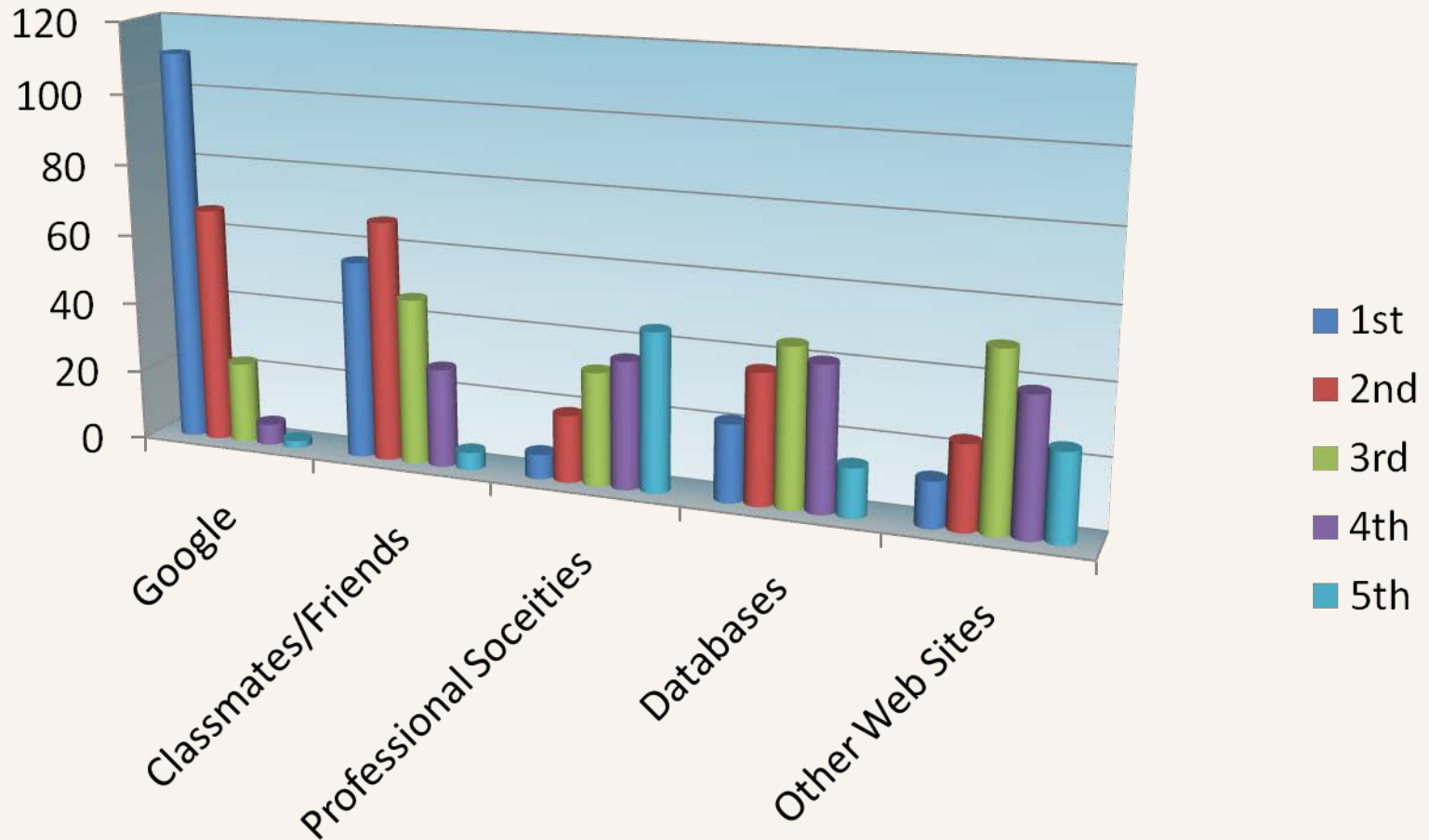
Resources Use Survey 2008 (Graduate – CEE/ME)



Q: Where do you go to meet your academic information needs?
(Please rank your 1st, 2nd, 3rd... choices) – (Graduate)



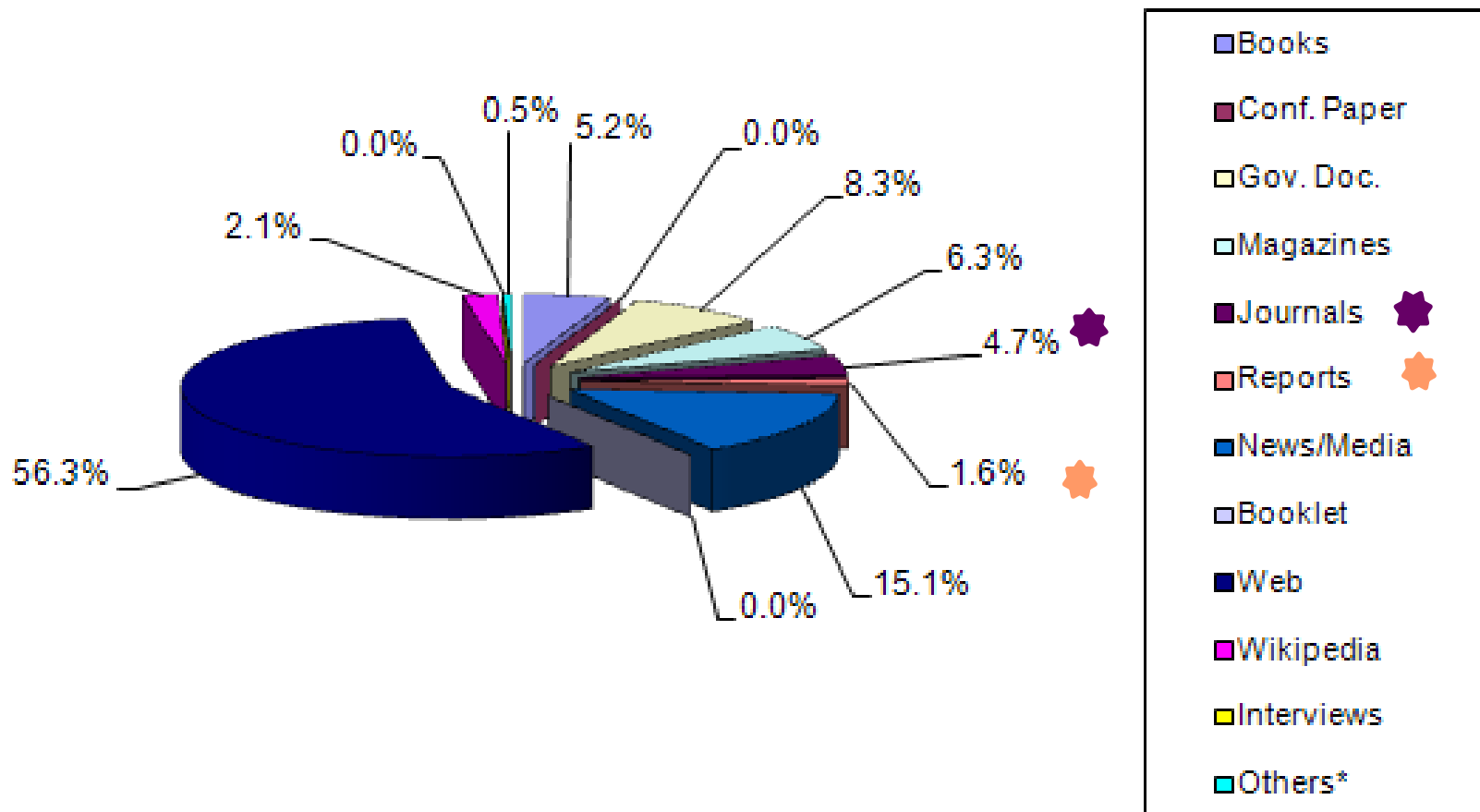
Resources Use Survey 2008 (Undergraduate CEE/ME)



**Q: Where do you go to meet your academic information needs?
(Please rank your 1st, 2nd, 3rd... choices) – (Undergraduate)**

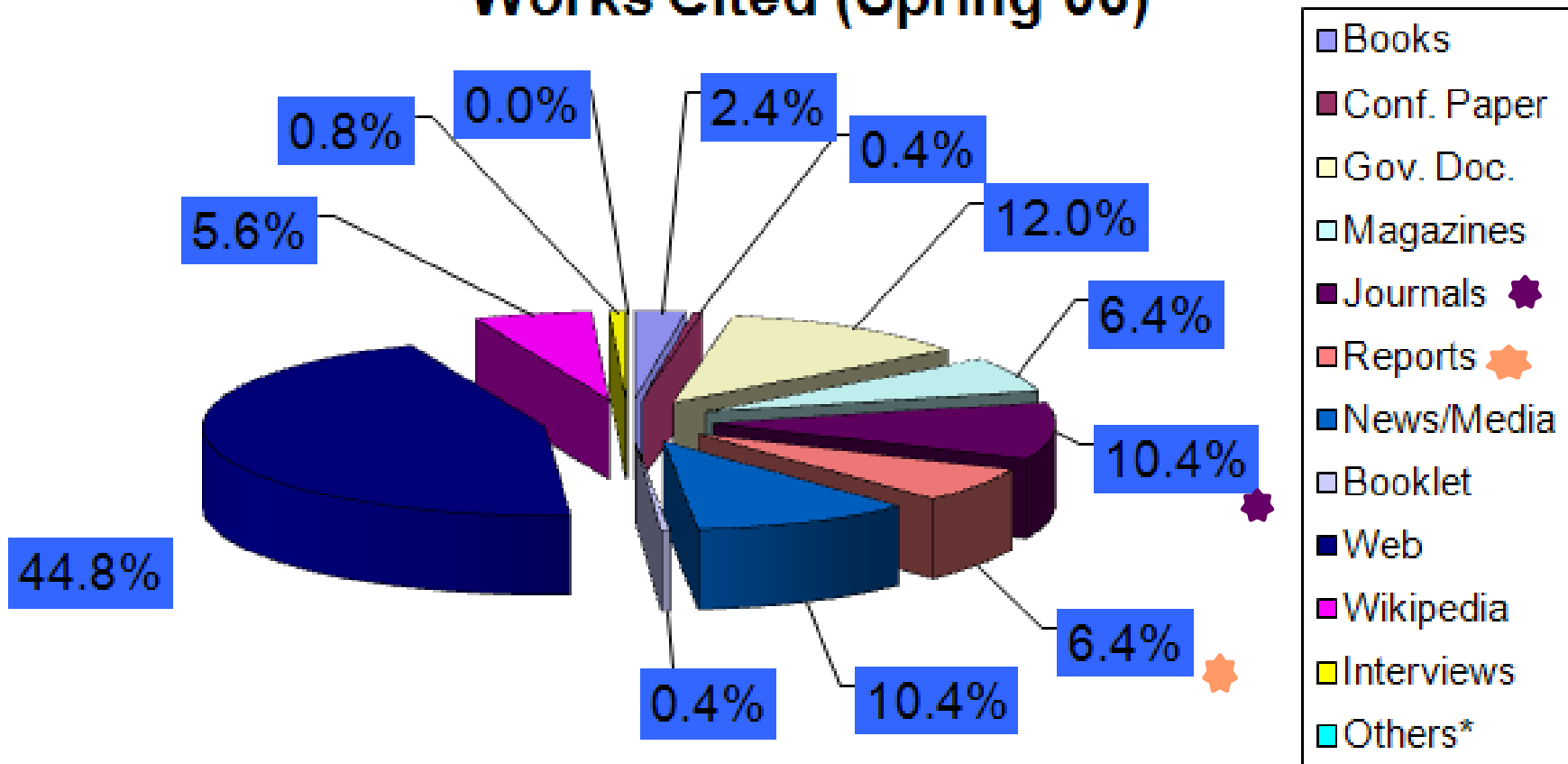
Student Project Report Reference Review

Works Cited (Spring 05)



Student Project Report Reference Review

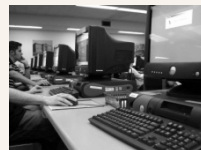
Works Cited (Spring 06)



Student Project Report Reference Review

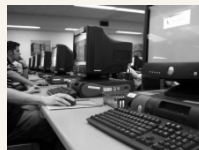
- Percentage of scholarly journal articles cited among all references*:
 - Spring 2005: 4.7%
 - Spring 2006: 10.4%
 - Spring 2007: 20%
 - Fall 2007: 18%
 - Fall 2010: N/A

(* Not including articles from trade journals and magazines)



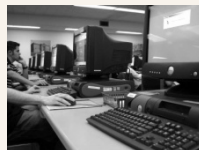
Student Project Report Reference Review (cont'd)

- Use of scholarly journals, technical reports and government documents
 - Before the workshop offered: 16%
 - After the workshop offered: 31%
(through 2007)



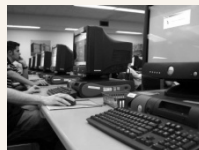
Workshop Outcomes

- Students gained knowledge of value-added resources and were able to select appropriate search tools for their projects
- Students learned how to conduct effective searches and evaluate results
- Students learned how to effectively manage, and incorporate info. into their reports
- Students were aware of rights issues and asked related questions



Workshop Outcomes (cont'd)

- Workshop expansion:
 - offering two sessions for each class
 - including all classes for the same course
- Workshops are offered every semester including summer.
- Workshops standardized in course syllabus
- Librarian has more opportunities working with different professors each semester.



CEE 3000 Course Syllabus

Benchmarking Sustainability Engineering Education: Final Report:
Appendix D: Course Syllabi

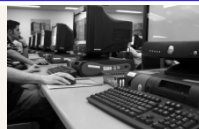
EPA Grant X3-83235101-0
5. Civil Engineering Systems, Georgia Tech

Course Outline

Week	Class	Date	Topics	Assignments
1	1	Aug 21	Course overview; Introduction to sustainability: trends, definitions, measurement; Systems representation and analysis; Planning from a systems perspective; Performance-based planning; Context sensitive solutions, Asset Management; Environmental and Social Impact Assessment	Project description out
	2	Aug 23		
2	3	Aug 28		HW1 out
	4	Aug 30		
3	5	Sept 4	Mathematical models, Optimization by Calculus	HW1 due
	6	Sept 6		Library Workshop*
4	7	Sept 11	Engineering Communication I: Written	COM1 out
	8	Sept 13	QUIZ #1	HW2 out
5	9	Sept 18	Engineering Communication II: Visual	COM1 due/COM2 out
	10	Sept 20	Optimization by Linear and Integer programming; Queuing Analysis; Incorporating uncertainty in	Project Bibliography due
6	11	Sept 25		COM2 due

Library Information Skills

Another important objective of this course is to develop basic library information and research skills (manual and electronic). Again, the project is designed to develop and assess these skills. In particular, the quality, range and balance of information sources used in the project will be evaluated. Ms. Lisha Li, the Civil Engineering Librarian for the Institute, will participate in the course by presenting a workshop on the basics of Library Information and Research Skills and should be considered an important resource as you develop your written reports. She can be reached at lisha.li@library.gatech.edu or 404-385-7185.



Center for Sustainable Engineering (CSE) Benchmark Assessment



Benchmark Assessment

The Center has recently completed an EPA-funded project to determine the status of sustainable engineering education at four-year colleges and universities in the U.S. As part of this project, the Center has collected information on courses and curricula, sustainability centers and institutes, conferences related to sustainability, and other activities related to Sustainable Engineering. In addition, the Center has collected information on the content of courses, such as the key concepts, types of educational activities, and written materials.

Based on the project results, the Center is developing a roadmap for achieving excellence in Sustainable Engineering education, and will summarize the data and the roadmap in journal articles and on the Center website.

The final report for the EPA project is available by clicking below:

- [Final Report, all text except Course Syllabi](#)
- [Course Syllabi Part 1](#)
- [Course Syllabi Part 2](#)
- [Course Syllabi Part 3](#)
- [Course Syllabi Part 4](#)

<http://www.csengin.org/>



EIS Documents Digitization Project

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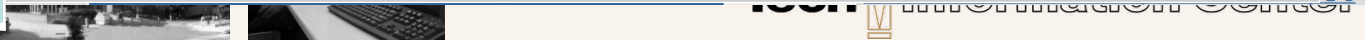
Browsing "Environmental Impact Statements (EIS)" by Title

Jump to: [0-9](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

or enter first few letters:

Issue Date	Title	Author(s)
3-Sep-2009	Fort Drum Connector (I-81 to Fort Drum North Gate), new highway construction, Towns of Le Ray and Pamela, Jefferson County: Final Environmental Impact Statement	United States. Federal Highway Administration; New York Department of Transportation
Jan-2001	U.S. 93 Hoover Dam Bypass: Final Environmental Impact Statement and Section 4(f) Evaluation	Federal Highway Administration; Central Federal Lands Highway Division
1975	Environmental impact statements for transportation facilities	American Society of Civil Engineers, Metropolitan Sections; Institute of Traffic Engineers, Metropolitan Sections
Jan-2000	WA-16/Union Avenue Vicinity to WA-302 Vicinity of Tacoma Improvements : environmental impact statement.	United States. Federal Highway Administration; Washington State. Department of Transportation
Jan-2003	Chicago - St. Louis High-Speed Rail Project: Final Environmental Impact Statement	United States. Federal Highway Administration; Illinois. Dept. of Transportation
Sep-2008	Doyle Drive: south access to the Golden Gate Bridge: final environmental impact statement/report and final section 4(f) evaluation./3 VOLUMES	California Department of Transportation; San Francisco County Transportation Authority; Federal Highway Administration, U.S. Department of Transportation
2007	Environmental Assessment for Reconstruction of Turtle River Lake Road, Forest Highway 52 (County State-Aid Highway 22) Chippewa National Forest, Beltrami County, Minnesota.	FEDERAL HIGHWAY ADMINISTRATION, STERLING, VA. EASTERN FEDERAL LANDS Highway Div; FOREST SERVICE, WASHINGTON, DC.
	Environmental Assessment: Natchez Trace Parkway, Lindsey Creek, Threet Creek, County Road 85 and Highway 13 Bridge Replacement Wayne County, Tennessee and Lauderdale County, Alabama.	FEDERAL HIGHWAY ADMINISTRATION, STERLING, VA. EASTERN FEDERAL LANDS Highway Div; NATIONAL PARK SERVICE, WASHINGTON, DC.
	Repave and Rehabilitate a Portion of the Lassen Volcanic National Park Highway (Mileposts 6.7 to 28.4) Environmental Assessment, August 2005.	NATIONAL PARK SERVICE, WASHINGTON, DC
	Environmental Assessment for Roadway and Trail Safety Improvements George Washington Memorial Parkway: Virginia and Washington, DC.	FEDERAL HIGHWAY ADMINISTRATION, STERLING, VA. EASTERN FEDERAL LANDS Highway Div; NATIONAL PARK SERVICE, WASHINGTON, DC.

**Scholarly
Communication
& Digital
Services**



Distance Learning Session for GT Savannah Students (Wimba)

The screenshot displays a distance learning session interface. The main window shows a search engine interface for Compendex. The search criteria are: "transportation planning" AND "sustainab*" in the Subject/Title/Abstract field. The search is limited to "All document types" and sorted by "Publication year". The search results are displayed in a table with a blue header "Compendex".

Databases

- Compendex**
Compendex is the most comprehensive bibliographic database...
- Inspec**
Inspec includes bibliographic citations and indexed...
- PaperChem**
PaperChem is a database comprised of indexed bibliographic...
- Referex**
Referex Engineering is comprised of six collections of...

SELECT DATABASE

All Compendex Inspec PaperChem Referex ?

SEARCH FOR

transportation planning

AND

AND

SEARCH IN

Subject/Title/Abstract ?

Subject/Title/Abstract

All fields

Browse Indexes ?

- [Author](#)
- [Author affiliation](#)
- [Controlled term](#)
- [Serial title](#)
- [Publisher](#)

LIMIT BY

All document types ?

All treatment types ?

Discipline type not available ?

All Languages

1998 TO 2009

1 Updates ?

SORT BY

Relevance ? Publication year

Autostemming off ?

Search Tips

Use truncation (*) to search for words that begin with the same letters.

Personal Account

[Register](#) or Login:

Username:

Password:

Compendex

Chat Window

Connecting to server...
You have connected successfully!
You have entered 'Main Room'.
Your media format is WimbaMedia.
>> The AppShare session is now displaying Lisha_Li's desktop.

To: Main Room

People (1)
Lisha_Li

Demo through Podcasting (Camtasia)

The screenshot displays the TRIS Online search interface. At the top left is the Department of Transportation logo. The main header reads "TRIS Online • TRT • NTL Catalogs" and "NTL Integrated Search National Transportation Library". Below the header are navigation tabs: "New Search", "Browse", "Advanced Search" (which is highlighted), "Search History", and "Mark". The "Advanced Search" section contains a search form with the following elements:

- "Search in" dropdown menu set to "TRIS Online".
- "for" text box containing "Cracking of asphalt concrete pavements".
- AND dropdown menu.
- Text box containing "airport runways".
- AND dropdown menu.
- Empty text box.
- "Search" button.

At the bottom of the interface is a video player control bar with play, stop, and navigation buttons, and a progress indicator showing "0:02:32.44 / 0:04:22.91".



Resources Page Via T-Square (Sakai)

T-Square : 3000 Project...

My Workspace 3000 Projects 333 Sakai Materials 8813 Projects CEE 6330 My Active Sites ▾

PROJECT TOOLS

- Home
- Syllabus
- Announcements
- Schedule
- Resources
- Forums
- Drop Box
- Email Archive
- Sakai Project News
- Web Content
- Site Info
- Blogger
- Modules
- Podcasts
- PostEm
- Search
- Section Info
- Wiki
- Help

WEB CONTENT

Options

CEE3000

Civil Engineering Systems

Spring 2009

Library Resources Page

This page is an introduction to information resources, both at the Georgia Tech Library and on the Internet, which will help you with your research projects.

Finding Background Information	Locating Books	Locating Articles/Papers	Accessing Electronic Journals
Finding Technical Reports	Finding Government Documents	Finding EIS Information	Finding Statistics
Locating Company Information	Finding Newspapers	International Resources	Locating Maps/GIS
Obtaining Materials	Evaluating Internet Sites	Citation Tools	Further Info. & Contact



Course Guide (LibGuide)

CEE 3000: Civil Engineering Systems

Last update: Jun 13th, 2010 | URL: <http://libguides.gatech.edu/cee3000> | [Print/Mobile Guide](#) | [RSS Updates](#) | [SHARE](#)   

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RELATED GUIDES

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USE LIBRARY SERVICES

- [AskUs!](#)
- [Borrowing Services](#)
- [GT Web Localizer](#)
- [ILLiad - Interlibrary Loan](#)
- [Linking to Library Resources](#)
- [Presentation Rehearsal Studio](#)

[Comments \(0\)](#)

SHARE A LINK

WELCOME

This page is prepared to guide you through resources in the library as well as on the internet that are useful for your CEE 3000 projects. Depending on your project, you may use it by either looking at document types, such as books, articles, reports, or focusing on special aspects, such as social, economic, or environmental aspects.

I am available for individual appointment if you would need further assistance with your specific topic.

[Comments \(0\)](#)

VIDEO

New Hoover Dam



[Comments \(0\)](#)

SUBJECT LIBRARIAN



Lisha Li

Contact Info:

Georgia Tech Library
Office: 3rd Floor East
Phone: 404-385-7185
[Send Email](#)

Links:

[Profile & Guides](#)

Subjects:

[Civil & Environmental Engineering](#),
[Physics](#), [Patents & Trademarks](#)

FEEDBACK

Let us know how useful this guides is for you. Was this information helpful?

- Yes
 No
 Don't know

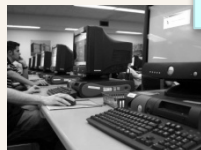
[Submit Vote](#)



Course Guide Use Statistics

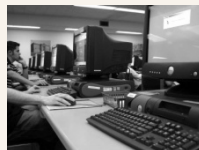
Page	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Application of Information	9	28	3	-	2	29	3	2	7	-	-	-	83
Articles	19	33	2	3	2	82	2	-	120	4	-	-	267
Books	13	27	4	3	3	38	1	3	72	-	-	-	164
Business & Management Aspect	-	-	-	-	-	-	-	-	6	2	-	-	8
Copy Right and Fair Use	-	-	-	-	-	-	-	1	4	-	-	-	5
Data Sets	12	21	4	1	3	12	2	1	14	-	-	-	70
Databases Descriptions	18	6	2	2	-	18	1	1	15	1	-	-	64
Economic Aspect	2	4	1	-	-	11	3	1	16	-	-	-	38
Environmental Aspect	4	3	1	1	-	15	4	1	13	1	-	-	43
Environmental Impact Statement (EIS)	7	13	2	1	3	7	1	-	24	1	-	-	59
Evaluation of Sources	6	14	2	-	2	8	4	3	15	1	-	-	55
Handbooks	4	5	1	1	-	3	-	-	6	-	-	-	20
Home	34	115	19	20	25	120	22	14	195	4	-	-	568
International	6	4	1	-	1	6	-	1	6	-	-	-	25
Managing Citations	-	-	-	-	-	-	-	2	5	-	-	-	7

Library Workshop



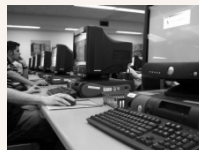
Lessons Learned

- Students were enthusiastic about participating
- Students were interested in when relevant example was used
- Uneven student information skill level (- suggest introductory class for transfer students)



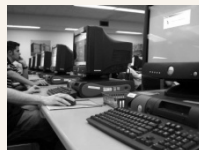
Lessons Learned (cont'd)

- Learn from teaching
 - Individual teaching -> classroom lecturing -> project based teaching -> *learner-centered teaching*
- Show them the “tricks” (e.g. EndNote, annotated bibliography, LibX GT)
- Learn from the students (e.g. invited to student project presentations)



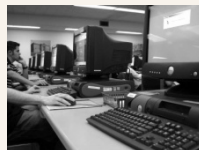
Discussions

- Students pay series attention to IL classes if it is emphasized especially by teaching faculty.
- Students are curious to learn how to search databases effectively, though some of them may not have enough patience.
- Reference analysis and other assessment measures. (quality, quantity)



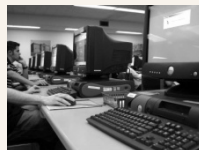
Conclusion

- Teaching information literacy through senior projects can be an effective way to engage students in learning.
- Collaborating with teaching faculty, librarians can win trust and embrace new opportunities.
- Be flexible and willing to learn and implement new methods in teaching information literacy.



Bibliographies

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- Li, Lisha; Baer, William. "Library and information use patterns by engineering faculty and students." *ASEE Annual Conference and Exposition, Conference Proceedings*, 2009. ASEE Annual Conference and Exposition, June 14, 2009 - June 17, 2009.
- Phyllis Blumberg. "Developing learner-centered teaching: a practical guide." Jossey-Bass, 2009.





Questions?



Thanks!