

Graduate Award for Excellence in Business GIS

DESCRIPTION OF THE AWARD:

The Center for Spatial Business (CSB) **Graduate Award for Excellence in Business GIS** will honor outstanding course projects submitted by School of Business MBA students enrolled in the MBA program's **Location Analytics Concentration**.

Description of MBA location concentration course projects (major assignment) can be found in the model syllabi of

- (i) GISB 691 – INTRODUCTION TO LOCATION ANALYTICS AND MARKETING,
- (ii) GISB 692 – SPATIAL ANALYSIS FOR GLOBAL BUSINESS
- (iii) GISB 694 – LOCATION ANALYTICS AND DECISION-MAKING
- (iv) GISB 695 – MANAGING AND LEADING THE CONTEMPORARY SPATIAL BUSINESS.

Note: the course titles changed in summer 2018 for GISB 691, GISB 694, and GISB 695. Students with the prior course titles are eligible for the award.

One award will be given per calendar year.

The award will comprise of (i) an honorarium (see 5. Under Eligibility), and (ii) a framed certificate to the award recipient(s) signed by the School of Business Dean.

ELIGIBILITY: The following conditions must be met for eligibility –

1. The student(s) must maintain a minimum cumulative GPA of 3.00 (based on a 4.00 scale) in all graduate work completed at the University of Redlands till December 31, 2019.
2. The student(s) must be enrolled in at least one of the courses: GISB 691, GISB 692, GISB 694, or GISB695 at a School of Business campus location in calendar year 2019. In the case of nomination of a group project, all students in the group will be nominated. Students who are enrolled in GISB 691, GISB 692, GISB 694, or GISB 695 as an independent study and/or attempting to complete the course after previous failed attempts are not eligible for the award.
3. Student(s) must be nominated by the instructor of an emphasis course. A brief statement (no more than one page) nominating the student/group and attesting why the student/group is a worthy candidate for the award must be submitted by the instructor. In the nomination letter, instructors are encouraged to provide any information regarding how the client organization benefited from the project undertaken by the nominated student/group.
4. An instructor can nominate no more than two projects (individual project or group project) from any single Location Analytics course offering.

5. Both individual projects and group projects are eligible. If an individual project is selected as the award recipient, the honorarium to the individual will be \$500. If a group project is selected as the award recipient, the honorarium will be increased to \$750 and will be distributed equally among group members. Each student will receive a separate framed certificate.

CRITERIA FOR SELECTION: Selection criteria include the following –

1. Extent to which the project demonstrates synthesis and application of knowledge and skills acquired from the MBA program in general and the Location Analytics in particular.
2. Extent to which the project has evaluated the appropriateness of GIS to solve a real business problem.
3. Extent to which the project demonstrates understanding and consideration of management, planning, and strategic challenges involved with the application of GIS in organizations.
4. Extent, appropriateness, and validity of usage of desktop or online GIS software such as Esri's ArcGIS, ArcGIS Pro, Insights, and/or Business Analyst Online, or Tableau Desktop.
5. Writing quality: Is the writing clear, coherent, fluid, and adhering to a clear structure? Is the project scope clearly explained and motivated? Is terminology clearly defined? Etc.

TIMELINE FOR AWARD:

1. **By January 31, 2020:** Instructors will submit eligible student projects along with nomination letters to Dr. Avijit Sarkar (avijit_sarkar@redlands.edu).
2. **By February 8, 2020:** All award submissions will be sent to selection and review committee.
3. **By February 24, 2020:** The review and selection committee will select a winner.
4. **By March 4, 2020:** The winner will be notified and requested to attend the School of Business pre-Commencement luncheon reception (date TBD) where the award will be presented by the School of Business Dean.

REVIEW & SELECTION COMMITTEE:

This committee will be comprised of the following members –

1. Dr. James Pick, Director of CSB.
2. Dr. Steven Moore, Director of Spatial Studies, University of Redlands.
3. Dr. Avijit Sarkar, Professor, University of Redlands School of Business.
4. Adjunct Faculty Member in the IS/Analytics/GIS area, University of Redlands School of Business (TBD).

WHAT TO SUBMIT:

A nominating instructor must submit the following:

1. Student's/group's Course Project (cover page must contain student names, and email addresses),
2. One-page nomination letter attesting why a student/group is a worthy candidate for the award.

Send all submissions to Dr. Avijit Sarkar (avijit_sarkar@redlands.edu).

Submissions received directly from students without an instructor's nomination will not be considered.

WHOM TO CONTACT IN CASE OF QUESTIONS:

Avijit Sarkar

Professor & Interim Director, Center for Spatial Business (CSB)

School of Business, University of Redlands, 1200 East Colton Avenue, Redlands, CA 92373

Tel: (909) 748-8783 E-mail: avijit_sarkar@redlands.edu

The following is from the master syllabus of GISB 691 – Available in School of Business Public Folders

Core Project: Marketing Plan Project (Group assignment)

You will base your Marketing Plan on an organization/product of your choosing or an organizational context provided by me. If you choose your own organization, please discuss the applicability of it with me prior to the proposal due date.

Project approval process:

You are required to get an approval from me about your group project by within one week from our first meeting.

1. Find out a product/service for a business that is applicable to your current job or that you want to pursue in future. For example, you want to have a small business that will serve breakfast or snack to a local market. Make sure you find your market in southern California. Identify a location or several locations. Now your whole project would be to come up with a plan to market your product and service.
2. Describe the context for your marketing plan, anticipated analysis, sources of data and information and how you will incorporate geographic information in your analysis and/or decisions. Emphasize your intentions for using geographic and other data in analyzing the environment, segmentation, targeting, positioning, and/or marketing mix decisions. The depth with which you address each of the marketing mix elements will depend on your context, but each should be addressed. For example you might focus your recommendations on the promotion aspect of the marketing mix (personal selling, direct marketing, customer service, advertising, sales promotion, public relations) and simply describe the other marketing mix elements.

This won't be graded this time. But it will give you a focus to get a head start on your group project. Make sure you have enough time to think and work on the project. If anything is still unclear, please email me ASAP. Once I know what your group wants to do, I can explain better about the final project in the coming class.

- **Marketing Plan - Project Presentation (10%)** In *20 minutes* address the key aspects of your plan, including the analysis that leads you to your decisions on the target segment, positioning and the marketing mix decisions. The presentation is a persuasive communication, thus if it helps, consider how you would “pitch” the plan to group of savvy potential investors. Support for your recommendations should be solid, logical and well-supported with facts, analysis and insight. *Please provide me with a copy of the visuals at the start of your presentation.*
- **Marketing Plan- Project Report (25%)** In a written report, describe in detail the results of your analysis as they relate and support your recommendations. Your recommendations should address segmentation, targeting, positioning and each of the marketing mix decisions. As previously stated, you may focus your efforts on one or more of the marketing mix elements, but should address each at least briefly. Excluding tables and figures, the report should be approximately 5-7 pages long.

The presentation and report will be evaluated based on depth and clarity of analysis, thoroughness, evidence of understanding key marketing concepts, appropriately applied geographic information for marketing, clarity in use of language, and cohesiveness of the plan. **Details will be announced in the class.**

Manage your time for this project as substantial secondary market research and analysis is necessary.

***The following is from the master syllabus of GISB 692 – Available in School of Business Public Folders
Major Assignment: Manufacturing or Services Industry Analysis***

Note: can be done individually or in a group.

For an industry of interest to you, research and define the worldwide spatial distribution, flows, and clustering. Do not duplicate an industry already covered in Dicken, but pick a different one. The industry cluster can be global, national, or regional. Access the electronic journals available on-line from the Armacost Library or other library resources. Your 4 to 5-page report should include the following:

A definition of the spatial extent of the industry

A description of the types of related industries associated with the primary industry

An understanding of how the industry might be organized in terms of inter-industry linkages, supply chains, trade flows, access to common facilities and resources, etc.

The purpose of this assignment is for the student to demonstrate the use of Dicken’s theories in the analysis of a particular manufacturing or services industry including its spatial distribution and flows.

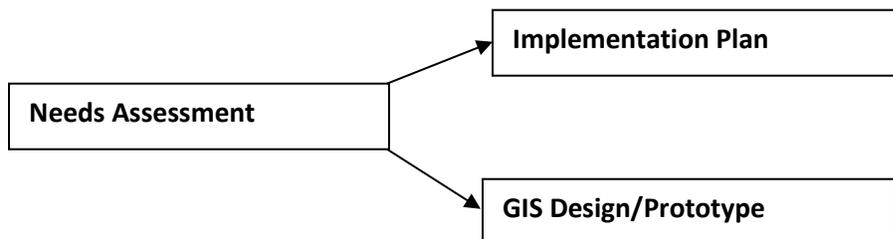
The following is from the master syllabus of GISB 694 – Available in School of Business Public Folders
Building a Spatial Big Data Solution – Term Paper

Students will work in teams of 2. Each team will design a spatial big data dashboard solution for one of three big datasets (each is spatially-referenced) that will be posted on Moodle for analysis. The team will discuss some background on the organization, justify how each worksheet in solution is put together, explain how the dashboard will help executive decision makers in the organization, and explain how the spatial aspects of the dashboard will contribute to improved decisions. Students will also document what process they used to design, build, and implement the solution. Students will utilize Tableau principally, but can optionally supplement the Tableau dashboard with an ArcMap or ArcGIS Pro to provide spatial analysis enhanced beyond Tableau’s capabilities. The paper will be 4-5 pages, not including map images.

The following is from the master syllabus of GISB 695 – Available in School of Business Public Folders
Core Project: The GIS Strategic Plan

The Core Project includes the GIS Strategic Plan document and Summary Presentation given at the last meeting. **Only the GIS Strategic Plan document is required to be submitted to be considered for the award.**

The GIS Strategic Plan document will include one or more of the following parts approved by the instructor on the first meeting: 1) Needs Assessment 2) Implementation Plan, and 3) GIS Design/Prototype.



Needs Assessment

The Needs Assessment is the first step in evaluating GIS for an organization and answers the research-driven question of “What does my business require from GIS in order to be more effective, efficient, competitive, safe, etc.? Are any GIS tools currently in place? If so, how effective are they? What gaps exist in current systems that GIS could fill? What information products are being sought? What are the organization’s requirements?” (Tomlinson, Chaps 5, 6) The needs address the differences or “gaps” between the “as is” present or baseline condition of the organization’s GIS and the “to be” future vision or need. The importance of the gaps determines the priority in which the GIS components will be developed.

A GIS Needs Assessment for business is developed under the assumption that Business Needs drive Application Needs which in turn drive Data Needs. Typically, an interview process will record, align, and

measure the gaps between business, application, and data needs for GIS. The GIS needs become organizational requirements for change when they are approved by the leadership of the organization.

For this class, the needs assessment document must address the four dimensions of GIS and the organization: 1) external Business environment, 2) internal Business functions or processes, 3) internal Applications (Information Products), and 4) internal Data (Information Products), as shown in Tomlinson's book. These sections should be surrounded by an Introduction that describes the organization's context and structure and a conclusion that emphasizes the requirements and priorities.

A comprehensive Needs Assessment is required for the Implementation Plan track. This will be based on an enterprise GIS or multi-department, organization-wide approach. A rapid needs assessment is required for the GIS Design/Prototype track. This will be based on a smaller or departmental deployment of GIS.

Implementation Plan

The Implementation Plan answers the pragmatically-driven question of "What GIS applications and data does my business have to purchase, use, and maintain in order to succeed? How should the organization roll out its GIS? Who should be involved? What should the schedule be? What training is needed? How is change managed?" (see Tomlinson Chap.12). The implementation plan addresses only the prioritized needs or requirements by filling the major technology "gaps" addressed in the needs assessment. The implementation plan also provides a roadmap for deploying and accomplishing goals with the verification and approval of the organization's leaders.

For this class, the GIS Implementation Plan presentation must include four parts: 1) tasks, 2) staffing considerations, 3) a schedule, and 4) a budget. The tasks are derived directly from the requirements from the needs assessment and can be practically accomplished or implemented using current GIS technology. Tasks are best defined using GIS best practices, solutions, or products. Staffing considerations take into account the abilities of current or future labor within the organization as well as outside support. A schedule is developed to help manage change and distribute the amount of effort needed to develop the GIS. Finally, a budget provides an estimate of the overall cost of GIS to the organization to complete the project's scope. The budget should include applications, data, and labor costs.

The presentation should use a spreadsheet for the budget and slide presentation software for the Implementation Plan. The presentation must show the costs associated with the needs. It should be emphasized that this is only a plan. The client organization will review this plan and decide if it actually will implement all, part, or none of it, after the student project is completed.

Additionally, a benefit/cost analysis can be provided by estimating the benefits and comparing them against the costs developed in the implementation plan (see Tomlinson, Chapter 11).

GIS Design/Prototype

The GIS Design/Prototype is a proof-of-concept using GIS technology. Students need to ask detailed and specific questions about GIS technology regarding a focused business need. What kinds of geographic information should the organization acquire? What kinds of analytical tools should they be using? What are the data design, logical data model, and system requirements? (Chaps. 8, 9, and 10 in Tomlinson).

Because the GIS Design/Prototype is part of the GIS Strategic Plan, a rapid needs assessment will be

required before proceeding. Projects must emphasize feasibility and proof-of-concept incorporating system investigation, analysis, design, prototype implementation, and maintenance planning. Students will use Desktop ArcGIS as the primary prototype environment and demonstrate it live or through a detailed presentation.

The GIS Design/Prototype will be presented with ArcGIS, other software, or slide presentation. The presentation must show the design elements associated with the needs, data design, logical data model, and system requirements along with a demonstration. The client organization will review this prototype and decide if it actually will implement all, part, or none of it, after the student project is completed.

Additional requirements for the GIS Strategic Plan document to be considered for award:

- I. The length of the document should not exceed 20 pages with the following formatting requirements: single spaced, 12 pt font size, one inch margin on each side. Diagrams, illustrations, maps, & bibliography are part of the page limit. Appendices are allowed and will not be counted towards page limit.
- II. Award submissions must be accompanied by a student's contact information.
- III. Award submissions must be accompanied by an abstract (no more than 100 words).
- IV. All citations must conform to APA citation style – the default style for all MBA program documents.

NOTE:

IF A STUDENT/GROUP OF STUDENTS IN ANY OF THE FOUR COURSES (GISB 691, GISB 692, GISB 694, GISB 695) HAVE SUBMITTED A MAJOR COURSE ASSIGNMENT IN LIEU OF THE PREVIOUSLY DESCRIBED ASSIGNMENTS WITH PERMISSION FROM THE INSTRUCTOR, AND THE SUBMISSION IS OF HIGH QUALITY, INSTRUCTORS MAY NOMINATE SUCH PROJECTS OR MAJOR COURSE ASSIGNMENTS FOR THIS AWARD.