

New Program Request Form for Bachelor and Master's Degrees

May 15, 2013

Directions: An institution shall use this form to propose a new bachelor's or master's degree program. In completing the form, the institution should refer to the document *Standards for Bachelor's and Master's Programs*, which prescribes specific requirements for new degree programs. Note: This form requires signatures of (1) the Chief Executive Officer, certifying adequacy of funding for the new program; (2) a member of the Board of Regents (or designee), certifying Board approval, and (3) if applicable, a member of the Board of Regents or (designee), certifying that criteria have been met for staff-level approval. Note: An institution which does not have preliminary authority for the proposed program shall submit a separate request for preliminary authority. That request shall address criteria set in Coordinating Board rules Section 5.24 (a).

Information: Contact the Division of Academic Affairs and Research at 512/427-6200 for more information.

Administrative Information

1. **Institution: The University of Texas at San Antonio**
2. **Program Name** – Show how the program would appear on the Coordinating Board's program inventory (e.g., *Bachelor of Business Administration degree with a major in Accounting*): **Master of Arts in Geography**
3. **Proposed CIP Code: 45.0701.00**
4. **Brief Program Description**– Describe the program and the educational objectives:

The MA in Geography is designed to give graduate students the ability to analyze social processes and the physical environment across a range of cultures and historical periods, using appropriate methodologies and data management techniques. In addition, and more specifically, the program seeks to: 1) advance the vocational careers of students with existing BA or BS degrees who are seeking jobs in the public or private sectors; 2) offer career credentialing for those currently working in the San Antonio region; 3) proffer advanced knowledge and credentials for San Antonio junior college and secondary teachers; 4) Exploit the strong international connections that UTSA and the geography faculty have already established, to promote external study and research for our students; 5) provide a rigorous graduate program that prepares MAs for entry into Ph.D. programs at UTSA and elsewhere; 6) contribute to research on and solutions to regional social and economic problems; 7) enable under-represented groups to obtain advanced training closer to their residences; and 8) encourage students to become involved in professional geography through pertinent internships, conference presentations, publication, and membership in the Association of American Geographers.

5. **Administrative Unit** – Identify where the program would fit within the organizational structure of the university (e.g., *The Department of Electrical Engineering within the College of Engineering*):

The MA in Geography will be administered within the Political Science and Geography Department, College of Liberal and Fine Arts.

6. Proposed Implementation Date – Report the first semester and year that students would enter the program: **Fall semester, 2014**

7. Contact Person – Provide contact information for the person who can answer specific questions about the program:

Name: **Dr. Dorothy Flannagan**

Title: **Vice Provost and Dean of the Graduate School**

E-mail: **dorothy.flannagan@utsa.edu**

Phone: **210-458-6878**

Program Information

I. Need

Note: Complete I.A and I.B only if preliminary authority for the program was granted more than four years ago. This includes programs for which the institution was granted broad preliminary authority for the discipline.

A. Job Market Need – Provide short- and long-term evidence of the need for graduates in the job market.

Geographers hold a great diversity of jobs: urban land use planners, high school teachers, junior college teachers, environmental scientists, water resources specialists, GIS analysts, regional planners, marketing specialists, real estate locational analysts, and many others. San Antonio's recent surge in population growth and the ensuing demand for planners, teachers, resource managers, and GIS specialists has generated opportunities for persons trained in modern human and physical geography.

There are a number of geography MAs working in San Antonio who have their degrees from elsewhere. Many (perhaps a majority) of these externally-trained geographers are from San Antonio, and would benefit from the chance to obtain a higher geography degree locally to avoid the cost of traveling to Texas State University (50 miles), the University of Texas at Austin (80 miles), or Texas A&M University (150 miles) to obtain that degree. The *Guide to Geography Programs in the Americas, 2011-2012*, lists over 50 Geography Masters degrees awarded in 2011-2012 at Texas State University, UT Austin, and TAMU. The San Antonio market absorbs a number of these graduates. The Department of Geography at Texas State University, San Marcos publishes a "Business Cards of Department Graduates" directory that in its latest edition (2011) lists some 250 graduates (undergraduate as well as graduate) employed in geography-related occupations locally, statewide, nationally, and internationally. Four-fifths of these are in Austin, Dallas, Houston, and San Antonio. Although TSU's Masters is a more applied program that that being proposed for UTSA, this list is instructive on the nature of jobs that many graduates of our program could fill. Its job listings for San Antonio are included in Appendix One.

Along with the well-known opportunities in GIS, there are regional and cultural features of San Antonio to which a graduate program in Geography is particularly configured at present to service. San Antonio's economy has long rested on two economic pillars – military bases and tourism. In recent years the evolution of these industries has presented a new array of opportunities for the city.

With respect to the latter, San Antonio's tourism has been at the forefront of the urban development model driven by historical preservation that has exploded in the last four decades---that is historical preservation specifically geared to tourism revenues as a model for urban renewal. Thus, after implementing the first historical district in the state of Texas in 1968, the city created an additional 26 historical districts as a means to renew failing neighborhoods that presently represent both high and low income demographics. This model of development has come to represent an increasingly central position in the state's economy. As the Center for Urban Policy Research in Austin stated in 1999, "historic preservation is not an alternative to economic growth but a key component of it." Representing \$1.4 billion of economic activity annually, historic preservation supported almost 41,000 jobs in 2010 making it "one of the best investments available today" that creates the same number of jobs and generates the same amount of tax revenues as new building construction. Employment opportunities in urban planning and urban preservation are making San Antonio into an exemplar of small scale, anti-modern and health-conscious urban development, producing such initiatives as art walks, health conscious riverine development, ecotourism, and recent re-conceptualizations of the suburban experience such as 'Cyclovia' and 'National Night Out'. Geography at UTSA is well-prepared to take advantage of these opportunities to the benefit of its graduates and UTSA. Our program is already producing a notable amount of research directly addressing these dynamics.

Secondly, with respect to the second pillar of growth – military spending – there has been an evolution of opportunities for those with a degree in Geography. The Department of Defense issued contracts to the sum of \$5.5 billion in 2006 in San Antonio. Nine thousand additional students have been projected to result from such spending alone. Of particular note to Geography with respect to military funding is the rapid increase in national security and terrorism funding. The National Security Agency has recently established one of its four offices outside of Washington in San Antonio, and they have been joined by the 24th Air Force Command (specializing in cyberwarfare), the Air Force Intelligence Surveillance Reconnaissance (AFIRSA) as well as private security interests such as the Denner Group Limited and cryptologic products support groups – all representing approximately 18,000 to 20,000 jobs. As an indication of the potential synergy between national security concerns and our MA program, a geography BA from our program completed her MA and PhD elsewhere, with a specialization in terrorism response research. She currently is an adjunct faculty member in our program. Furthermore, a number of our majors have interest and job experience in military intelligence, hazard perception, geopolitics, and GIS, and this parallels involvement in these topics by majors in Political Science and Sociology. Our proposed MA will exploit these natural linkages, ultimately producing more opportunities for graduate level research, internships, and grant opportunities. Given the importance of the military in San Antonio, it is also believed that *strategic partnerships* could be formed between the U.S. Army and U.S. Air Force communities for the enrollment of officers for advanced academic training. The military is often quite keen to develop the critical-thinking skills and geographical content knowledge of their personnel. Given their missions abroad, the military is currently quite interested in cultural geography, environmental geography, and geopolitics.

Finally, San Antonio's rapid population growth has generated a demand for two additional job areas---planning and teaching. Metropolitan San Antonio's rate of growth has been increasing in recent years in relation to Texas' two largest metropolises---Dallas and Houston. San Antonio's growth rate before 2000 was around 2/3 that of these cities, but since 2000 it has drawn even with them. Over the period 2010-12, San Antonio grew 4.3%---the same rate as Dallas and Houston, adding 91,000 persons to its population. This growth has resulted in unprecedented hiring in infrastructure planning, particularly in two key public agencies---SAWS (the San Antonio Water Systems) and the City of San Antonio Planning Department. These two agencies, along with related ones in water management and urban planning, have accounted for a substantial proportion of the jobs held by geographers in the city in recent years (see Appendix One). Regarding teachers, Northside Independent School District in San Antonio currently has 100,000 students, and it opens *three to five new schools every year*. The district now has 15 high schools compared to only 10 in 2000 and 6 in 1990. World Geography is a course required of all high school students in Texas, and the Geography undergraduate program at UTSA trains many future teachers in its core and its upper division regional courses. But there is an ever-growing demand for teachers with the Master's degree. UTSA's broad-based Masters' program will help fill that need, with courses that span social, historical, political, and physical geography topics.

The latest statistics (2012) from the US Department of Labor's Occupational Outlook website emphasize the increasing need for geographers at the national level. The projected growth rate in job-market demand for students with at least a BA degree in geography is 29% and above for 2010-2020---the highest growth category in the table. This is higher (for example) than the growth rates for psychologists, sociologists, anthropologists, and political scientists. The median pay for geographers is \$55,000 to \$75,000 per year---the next to highest category and comparable to the pay in these other professions. The growth in demand for related fields in which geographers are heavily employed is also robust---for example, from 10-19% for elementary and post-secondary teachers, and the same for urban and regional planners.

- B. Student Demand – Provide short- and long-term evidence of demand for the program.

There are no geography MA programs in South Texas. If approved, UTSA would have the only GRG graduate program in the Texas border region (including San Antonio) as defined by the Texas Coordinating Board for Higher Education. This has important implications, because as a Hispanic-serving institution, UTSA is dedicated to their advancement; Hispanics now account for almost half of its bachelors degrees and over a third (35%) of its Master's graduates. Hispanics are prominently represented among current geography undergraduate majors (30-40%), many of whom will see the Geography M.A. program as an opportunity for career advancement close to home. Research (Jones and Kauffmann, *Social Science Journal*, 1994) shows that when graduate programs are locally available, Hispanics attend at higher rates than Anglos. Career-ladder advancement is important, and the Geography M.A. will serve a large number of Hispanics employed in planning jobs in San Antonio and seeking a higher degree, but for whom the commute to San Marcos (the closest Geography MA program) is difficult given their other obligations.

In direct support of the potential for meeting the enrollment goals of our proposed MA program, consider the results of a questionnaire that was administered to a representative sample of 46 UTSA geography majors and minors enrolled in upper division classes in 2011-12. Of these, 14 (40%) stated a "moderate" to "high" probability of enrolling

in the GRG MA at UTSA. If these figures are interpolated to the 80 current majors in the program, this translates to 32 potential students for our program. Given that our anticipated headcount enrollment in the program is projected to be 10 in its first year (see page 3 of this proposal), it can readily be seen that we have the potential to meet that goal from our undergraduate majors alone. But thinking more conservatively, if only 8 of the potential 32 students are drawn from our recent graduates, there are GRG (and other) BA's living and working in the San Antonio and south Texas community who might be expected to take an interest and enroll in the program, accounting for the other two student enrollees.

Letters were solicited from several UTSA Geography BA graduates concerning their take on the value of an MA program in Geography at UTSA. One writes: "UTSA is not just a duplication of Texas State or UT Austin. UTSA has its own traditions of accessibility and community which are tied into the history of San Antonio. Hopefully, in the future, students like myself will have the opportunity to stay [by enrolling in the Geography MA]." Another writes: "The unmet need for geographic education and research in the San Antonio area would be well served by such a program, and it would further benefit UTSA in its goal towards becoming a tier-one research institution." The full responses are reproduced in Appendix Two.

The University's Strategic Plan 2016 identifies as its first strategic initiative to "Enrich educational experiences to enable student success." Among the goals associated with that initiative are enhancing graduate educational experiences, developing multidisciplinary and experiential learning opportunities, and integrating global perspectives into its curriculum. The Geography M.A. program will offer students a familiarity with professional geography and geographers both inside and outside of the classroom. Geography, as Political Science, is a discipline that is committed to an international perspective, and the GRG faculty have researched and traveled extensively in Latin America and Europe, and regularly incorporate these experiences into their teaching. The Geography MA Program will also appeal to prospective graduate students in Mexico and Latin America. Many students from Mexico enroll as undergraduates at UTSA; the M.A. Program will seek English-speaking graduate enrollments from better universities in Mexico, especially Monterrey and Saltillo. Other international students will also enhance the scope and research possibilities of the program.

As mentioned in the previous section, there is a strong need for a geography graduate program to professionalize the learning and teaching skills among the many hundreds of social science teachers in the greater San Antonio region. While a BA in Geography and teacher certification is often the gateway to vocational teaching, the MA Program would be very useful for the advanced training of high school and community college teachers. Currently, BA graduates in Geography go elsewhere for a master's degree, often at great expense and family hardship, before returning to Central Texas to resume classroom teaching.

Still another university strategic initiative is to "serve the public through public engagement." Through internships, writing assignments, and primary research, our students will be encouraged to interact with the community and region in which UTSA is embedded. The skills that geographers will be taught in our program (including locational analysis, GIS, geo-statistics, models of development, environmental assessment and analysis) are in demand in the region. Not only will we be devoted to the personal career progression of our students, but to understanding and addressing issues that affect the South Texas region---urban infringement on the environment, immigration, social inequities in education, health, housing, and political representation, energy and water resources, among others.

- C. Enrollment Projections – Use this table to show the estimated cumulative headcount and full-time student equivalent (FTSE) enrollment for the first five years of the program. (Include majors only and consider attrition and graduation.)

Estimated enrollments by year of the program:

YEAR	1	2	3	4	5
Headcount	10	14	17	19	26
FTSE	8	11	13	15	20

The headcount figures constitute the average number of students enrolled in the program during regular semesters, based on (1) the experience of comparable geography programs elsewhere; (2) surveys of majors/ minors in geography classes; and (3) demand from local professionals for career advancement training in geography. The headcount figures also account for possible attrition due to extraneous factors. The FTSE figures above assume 1/3 full time (18 hours) and 2/3 part-time (12 hours) students per year enrolled in years 1-5. This translates to an average of 14 hours per student per year (.33x18 + .67x12 = 13.98). For year 1, e.g., 14 x 10 students ÷ 18 = 7.78 FTSE (rounded to 8).

The comparable geography program used in this analysis is the Masters of Applied Geography at New Mexico State University, during its first five full years of operation (1988-1993) [Thanks to Dr. Christopher Brown, Department Chair at NMSU for making these figures available]. The setting of the New Mexico State program, whose enrollments are pivotal in the above calculations, is surprisingly similar to that of UTSA: both are located in medium-sized metropolitan areas in the Southwest border region---central places for large tributary areas with employment in government, trade, and tourism. Although NMSU has fewer students (18,000 vs. 28,000 at UTSA) its mission and student body are similar---for example both have around 45% Hispanic enrollment and between 30% and 40% Hispanic enrollment at the Masters level. UTSA, with five tenure-track faculty currently, has the same number that NMSU and UT Dallas had, at the time their Masters program was founded. The enrollments listed in the table also take account of the *demand for a UTSA Masters program in Geography* from two additional sources: (1) UTSA geography majors and (2) the non-student working population in the San Antonio and South Texas community.

First, it is important to know that the UTSA Masters in Geography will be approximately 40% applied (GIS, urban, environmental management) and 60% academic (social, cultural, political, and physical topics), reflecting the training of our two new hires and our three existing faculty. Since most of the students interested in these academic topics will come from our own majors, the following question is pertinent: Can we expect at least 60% of the first year headcount (0.6 x 10, or 6 students) to come from our BA graduates? This question is answered from a survey of geography majors and minors during 2011-12 (n = 46). We found that 40% stated a “moderate” to “high” probability of enrolling in the GRG MA at UTSA. Applied to the 80 majors in the program in recent years, this translates to 32 potential students for our program. Assuming that these intentions still hold, and (conservatively) that only ½ would actually enroll and only ½ of these in our first year, this calculation results in 8 students. This is two more students than the 6 “academic” students needed, based on the above calculations.

Second, will we be able to recruit the remaining “applied” 2 students (needed to meet the targeted number of 10 students) from the San Antonio and South Texas community? The geography faculty regularly get inquiries from UTSA geography BA graduates of our program. A perusal of our files and telephone records reveals some 15 such inquiries per year from our former students, many of whom are working in the community, applying for jobs, or desiring to pursue graduate studies, and who ask when we will have a Masters program in place. It is reasonable to expect that with a concerted effort we will be able to recruit at least 2 of these “local” students into our program.

Through internships (at both undergraduate and graduate levels), hiring of adjunct faculty, and continued contacts with alumni, the geography program will build these community contacts in subsequent years of the program.

II. Quality

A. Degree Requirements – Use this table to show the degree requirements of the program. (Modify the table as needed; if necessary replicate the table for more than one option.)

NON-THESIS OPTION:

Category	Semester Credit Hours	Clock Hours
General Education Core Curriculum <i>(bachelor's degree only)</i>	---	
Required Courses	18	
Prescribed Electives	18*	
Free Electives	0	
Other <i>(Specify, e.g., internships, clinical work)</i>		
TOTAL	36	

***At least 6 hours must be in GRG**

THESIS OPTION:

Category	Semester Credit Hours	Clock Hours
General Education Core Curriculum <i>(bachelor's degree only)</i>	---	
Required Courses	18	
Prescribed Electives	9*	
Free Electives	0	
Other <i>(Specify, e.g., internships, clinical work)</i>	6**	
TOTAL	33	

***At least 6 hours must be in GRG.**

**** Thesis (6 hours)**

- B. **Curriculum** – Use these tables to identify the required courses and prescribed electives of the program. Note with an asterisk (*) courses that would be added if the program is approved. *(Add and delete rows as needed. If applicable, replicate the tables for different tracks/options.)*

Prefix (GRG) and Number	Required Courses (18 hours)	SCH
5003	Research Design & Spatial Analysis *	3
5433	SP: Environmental Landscape Management	3
5513	Geography and Culture	3
5753	Geography of Development	3
5903	Political Geography	3
5913	Design and Management of GIS	3

* New course to be added to catalog for 2013-2015.

Prefix (GRG) and Number	Prescribed Elective Courses: (For thesis option, 9 hours, of which 6 must be in GRG; for nonthesis option, 18 hours, 9 of which must be in GRG). SP refers to Special Problems	SCH
5303	Economic Geography	3
5323	Urban Geography	3
5353	SP: Seminar in Historical Geography	3
5403	SP: Biogeography	3
5413	Climatology *	3
5603	SP: Geopolitics	3
6953	Independent Study	3
6963,6	Internship	3,6
6973	Special Problems	3
6986	Master's Thesis	6
Prefix & number: Other Disciplines (Outside Electives)		
ANT 5483(2) **	Landscape and Settlement	3
ANT 6723(3-4) **	Seminar in Culture, Environment, and Conservation	3
GEO 6503(1-2) **	GPS Mapping	3
GEO 6513(1) **	Advanced GIS	3
PAD 5483(4-6) **	Environmental Policy	3
PAD 5503(1-2) **	Introduction to Urban Planning	3
POL 5793(4-6) **	International Political Economy	3
SOC 6043(4) **	Immigration and Society	3

* New course added to catalog for 2013-2015.

** Offered every nth year: (1) = every year; (2) = every second year; etc.

- C. Faculty – Use these tables to provide information about Core and Support faculty. Add an asterisk (*) before the name of the individual who will have direct administrative responsibilities for the program. (*Add and delete rows as needed.*)

Name of <u>Core</u> Faculty and Faculty Rank	Highest Degree and Awarding Institution	Courses Assigned in Program (GRG)	Teaching: % Time Assigned To Program
Miguel DeOliver, Associate Professor	Ph.D. in Geography, Penn State	5903 (Political Grg), 5603 (Geopolitics), 5003 (Research Design & Spatial Analysis)	16%
Nazgol Bagheri, Assistant Professor	Ph.D. (spring 2013, pending), U. of Missouri, Kansas City; hired for fall, 2013	5913 (GIS), 5323 (Urban Grg), 5003 (Research Design & Spatial Analysis)	16%
*Richard Jones, Professor	Ph.D. in Geography, Ohio State University	5753 (Grg of Development), 5303 (Economic), 5003 (Research Design & Spatial Analysis)	16%
John Morris, Professor	Ph.D. in Geography, U. of Texas at Austin	5513 (Grg & Cult.), 5353 (Historical), 5003 (Research Design & Spatial Analysis)	16%
Melanie Stine, Assistant Professor	Ph.D. (spring 2013, pending), Texas State University, hired for fall, 2013	5433 (Environmental Landscape Manage- ment), 5403 (Biogeography), 5003 (Research Design & Spatial Analysis)	16%

Commentary: Staffing of the Graduate and Undergraduate Programs in GRG

The MA in Geography at UTSA emphasizes faculty strengths in cultural, social, physical, and urban geography, while inculcating the fundamental concepts and skills of GIS and spatial analysis. The hiring of two new tenure-track faculty for fall 2013 will give us a total of five. With five faculty and a limited number of graduate GRG electives, an MA student will be able to finish the program in a minimum of two years, referred to below as a *cycle*. With 16% of faculty time devoted to Masters level courses and 84% to undergraduate teaching, with the help of adjunct instructors we will be able to maintain our large and well-regarded undergraduate program. The one exception to the 84% will be the Graduate Advisor of Record, whose duties will limit his/her undergraduate teaching to 64% of the total.

Otherwise, the graduate program is designed to involve all tenure-track faculty equally, just as does the undergraduate program---including the expectation that both introductory (or required) and advanced courses will be taught by each faculty member. There will be no loss of quality or time expended on our undergraduate program.

Specifically (as specified in the above tables):

Over the first five years of the program, each of our five tenure-track faculty will teach 4 graduate classes; in other words, we will offer a total of 20 graduate classes over the period, or 4 classes per year (two per semester). Assuming a 2-3 or 3-2 teaching load for each faculty member, of the 25 total (undergrad plus grad) classes he/she teaches during this period, four (16%) will be graduate classes. Of these four classes, 3 will typically be required courses and 1 an elective course. The exception is the GAR, as indicated above, who will devote 20% of his/her time to GAR duties, 16% to graduate teaching, and 64% to undergraduate teaching. These figures actually underestimate undergraduate offerings, since some graduate courses will be offered as grad/undergrad. They also ignore undergraduate offerings in the summer, and of course the undergraduate courses that are taught by adjuncts. It should be noted that unless they have special knowledge or expertise in addition to advanced training in the topic, it will not be proposed that adjunct faculty teach graduate courses.

Under this plan, the six required courses will each be offered by geography faculty once during a *two-year cycle*, along with two electives (*excluding* independent study, internship, and thesis), for a total of eight classes per cycle (elective courses will vary). The eight outside electives (those offered outside the discipline of geography) will be offered on schedules determined by the appropriate disciplines (see page 10 for the timing of these courses). The geography electives and outside electives give students a choice and allow for a modest degree of specialization. For example, then, a non-thesis option student who took and passed all the geography MA classes offered during a cycle would be able to graduate with 6 required courses, 2 geography electives, and 4 outside electives, for a total of 12 classes @ 3 hours per class, or 36 hours. We plan to expand the allowable list of outside electives open to geography MA students. Students on the non-thesis option may take as many as 12 hours of prescribed electives from disciplines other than GRG. Students on the thesis option are allowed only 3 hours outside GRG. Internships and independent study courses are included in the options for prescribed electives.

The above plan has required only two GRG *substantive* graduate course additions to the 2013-15 graduate catalog. Additionally, upon MA program approval, we will add other courses: substantive courses, Independent Study, Internship, and Thesis options. These courses will appear in the 2015-2017 graduate catalog.

To reiterate, the GRG faculty feel strongly that we can offer the Masters degree while preserving undergraduate quality and enrollments.

- D. Library – Provide the library director's assessment of library resources necessary for the program. Describe plans to build the library holdings to support the program. **(provided by Ellen Lutz and Posie Aagaard)**

The University of Texas at San Antonio Libraries serve the tri-campus UTSA community through locations at the Main Campus, Downtown Campus, and the Institute of Texan Cultures at the

Hemisfair Park Campus. The Libraries support students, faculty, and staff with their research, information, and educational needs by providing the latest in library and information services within a research- and learner-centered environment.

Facilities

The renovation of the John Peace Library building, ongoing through 2013, represents a new vision for the Libraries as the true intellectual heart of an emerging premier public research university. When complete, the makeover will bring the 1976 building into the 21st century with state-of-the-art services, resources, and technology to support learning and research in a digital age. Phase One of the project included the creation of an Information Commons, complete with 125 new computer workstations, a Laptop Lounge, new furniture, and improved lighting throughout the building's second floor. Phase Two involved integration of the Judith G. Gardner Writing Center and two units of the Tomás Rivera Center (TRC): Supplemental Instruction and Tutoring Services. Continuation of this phase includes expansion of the Learning and Information Commons, which provides an additional 75 computer workstations, as well as creation of an 80-seat quiet study area. Phase Three involves creation of two new study spaces, a 100-seat collaborative teaching classroom, and a Faculty Commons.

Downtown Campus Library

Located in the Buena Vista Building (BV 2.314), the Downtown Library provides the same services available at the John Peace Library (JPL) on Main Campus. The Downtown Library houses the main collections of books and periodicals for architecture, interior design, criminal justice, public administration, counseling, and social work. In addition, the Library has a core collection of books and serials covering many subjects, as well as a collection of DVDs and CDs.

The Downtown Library offers thirty-six desktop computers and has printers, media viewing equipment, and a high-speed KIC scanner. Laptop computers are available for checkout from the Front Desk. The library is a great place to study with comfortable seating, quiet study areas, and group study rooms available for checkout. Tutoring is offered in the Library through collaboration with the Tomás Rivera Center.

Applied Engineering and Technology Library

The UTSA Libraries announced the opening of the state-of-the-art Applied Engineering and Technology (AET) Library, the nation's first completely bookless library on a college or university campus. The 2,200 square foot, 80-person capacity library, which primarily serves College of Engineering and College of Sciences students, is a satellite of the larger John Peace Library on the Main Campus. The library features three group study rooms and ten public computers with a scanner and printer. White boards are installed throughout the library, and three large wall-mounted monitors display a combination of social media, information on library services, and news of interest to engineering and science students. For more information about the AET Library, see <http://libguides.utsa.edu/AETLibrary>.

Personnel

The UTSA Libraries employ 35 librarians and archivists with accredited graduate degrees, as well as 73 full-time support staff and 22 graduate research assistants and student assistants. The professional librarian assigned as architecture subject specialist works with a faculty liaison in the College of Education and Human Development to provide support for the Counseling programs.

Subject specialists located at the main campus for the related disciplines education and psychology are also available.

Services

The library's reference services have moved beyond the traditional reference desk with "Ask us Anything" online service that connects students and researchers with reference services via phone, instant messaging, text messaging, and email. Individualized assistance ranges from instruction in basic library research for freshmen to in-depth research consultations with faculty members and doctoral students. In addition to providing assistance at physical and virtual service points, the library actively participates in campus outreach activities.

The UTSA Libraries offer a number of services to enhance student success, including laptop and portable DVD player lending; online course reserves; a videoconferencing room (managed in partnership with the UTSA Office of Information Technology); multimedia viewing rooms and equipment; individual and group study rooms, including rooms reserved for graduate student use; and a presentation room to allow students to practice and record multimedia presentations. To provide comprehensive student support, the library has created partnerships with campus tutoring programs, including the Judith G. Gardner Center for Writing Excellence; the Tomás Rivera Center, which provides tutoring in a variety of subjects; and the Supplemental Instruction Program, a peer-tutoring program.

Delivery of Materials

The UTSA Libraries provide quick and easy access to additional materials through Interlibrary Loan & "Get It For Me" services, streamlining the process for faculty and students by enabling direct delivery of books and journal articles. Books are delivered directly to faculty or staff members' offices; articles are sent via email. The library also participates in the TexShare reciprocal borrowing system, hosted by the Texas State Library and Archives Commission, which enables UTSA students, faculty, and staff to borrow books from academic libraries throughout the state.

Collections

General

The UTSA Libraries house and provide access to a wide variety of materials through the metasearch tool ([Library QuickSearch](#)), online catalog ([UCAT](#)), [databases](#), the [E-Journal and Ebook Locator](#), and the [OpenURL link resolver](#). Off-campus access to electronic resources allows students and faculty to use materials outside the library's physical walls, thereby making resources accessible in classes, labs, and student spaces across campus and off campus, particularly to distance learners and other individuals who are unable to come to the library. Specialized subject and course research guides are available at <http://libguides.utsa.edu>.

Over the past several years, the UTSA Libraries and the University have taken sustained, targeted action to improve library collections, facilities, and services. The library holds over 1.9 million print and online monographic volumes, over 68,000 online and print serials, and nearly 50,000 audiovisual items. The large government documents collection includes a complete depository for Texas state documents and a selective Federal Document Depository. The library provides access to a robust collection of nearly 400 online databases.

Over 12,000 CDs, 10,000 DVDs, and thousands of videos are located in the JPL multimedia area, which also provides listening and viewing equipment. Tens of thousands of streaming videos are available online. Over 2.5 million microforms, including primary research materials, major national and regional newspapers, and government documents sets, are housed in the library. The library has microform readers and printers that create digitized images of film or fiche.

Library Materials and Expenditures in Geography

The library provides robust access to major geography and geological sciences databases which include over 2,700 ejournals in support of UTSA's geography curricular and research emphases, as well as thousands of related ebooks and nearly fifty major online databases; major print journals; nearly 20,000 print books; and nearly 8,000 maps. The library provides access to additional materials in related areas, such as demography, environmental science, anthropology, political science, and the broader social and physical sciences.

In FY2012, the library's monographic title and volume counts specific to geography totaled 17,063 and 19,042, respectively. The library expended nearly \$10,000 for books, electronic resources, multimedia, and journals specific to geography in FY2012. FY2013 allocations approach \$10,000. Additional amounts are expended for materials in related areas such as political science, anthropology, geology, and demography.

Assessment of Collection Strengths and Growth in Geography

The library subscribes and provides access to over 550 print and online periodicals in economic geography, population geography, historical/cultural geography, physical geography, and political geography, in addition to a number of major online databases such as GeoRef, Digital Sanborn Maps, ARTstor, AnthroSource, Anthropological Literature, eHRAF World Cultures, LandScan, SimplyMap, and the World Atlas (in Britannica Online). The library recently added a subscription to the Geological Society of London's Lyell Collection, which includes journals and ebooks relevant to geography. Major collections of ebooks in geography are also available in the databases Oxford Reference Online, Oxford Scholarship Online, NetLibrary, and Ebook Library.

Other indexing and full-text online journal collections support graduate-level geography studies and research but are broader in scope and provide valuable depth, such as *Academic Search Complete*, *JSTOR*, *Project MUSE*, *Digital Dissertations and Theses Full Text*, *Journal Citation Reports (Sciences and Social Sciences editions)*, *RAND State Statistics*, *Sage Research Methods Online*, and *Web of Science*. Such collections support intensive research activities for a number of existing and proposed graduate programs.

Additional resources for the proposed program not yet identified will be considered on an ongoing basis. New books can be identified and purchased throughout the fiscal year. New print or online serials or databases are considered during the spring and summer months because of their higher impact on the library materials budget as ongoing costs. An initial review of serials most relevant to areas of focus for the proposed M.A. in Geography shows that the library currently provides access to an overwhelming majority of serials published in these areas. During the last fiscal year, the library funded over \$2,000 of new faculty requests for new serial subscriptions in support of the proposed Master's program. Requests for additional serials not currently subscribed total approximately \$600. This amount should be funded from the amount budgeted for new serials and databases.

The library's print and ebook collections are sufficiently broad and deep to support research in geography and can continue to grow in areas of focus. As with its support of other existing graduate-level degrees at UTSA, the library is well positioned to provide targeted services and access to materials in support of the graduate-level Geography program.

Cooperative Agreements

The UTSA Libraries participate in a variety of cooperative library agreements at the local, regional, national, and international levels that serve to broaden the base of resources available to the University's faculty, students, and staff and significantly improve access to resources, whether in the library, on either campus, or from remote locations.

The University of Texas System Advisory committee on Library Resources continues to pursue its goals in cooperatively acquiring, housing, and providing access to additional resources beyond the means of any single institution. Participating in the UT System Digital Library enables access to a number of specialized resources, including major scholarly online journal collections such as *JSTOR* and *Wiley Online*.

The UTSA Libraries is a member of the Center for Research Libraries. As such, UTSA faculty, students, and staff have access to over 5 million unique, rarely held materials collected by the Center. These materials both supplement and complement the holdings of most major research libraries. A description of the Center's collections is located at <http://crl.edu/collections>.

The TexShare Library Resource Sharing Program supports and enhances resource sharing among Texas academic libraries. In addition to access to all available online catalogs of TexShare libraries, TexShare membership entitles participants to access to several major electronic indexing services, such as *EBSCOhost* and its relevant collections, including *Academic Search Complete*. The UTSA Libraries will continue to be an active participant in TexShare projects.

The Council of Research and Academic Libraries (CORAL) is a consortium of twenty-nine San Antonio area libraries, including all local colleges and universities and a number of specialized institutions. Membership enables all University faculty, staff, and students to use the collections of other member institutions at no charge. This access includes unique archives and collections in the San Antonio area that may provide special opportunities for graduate-level research.

- E. Facilities and Equipment – Describe the availability and adequacy of facilities and equipment to support the program. Describe plans for facility and equipment improvements/additions.

Facilities

The Department of Political Science and Geography has two teaching laboratories that will be important in our graduate GIS, spatial analysis, and physical geography courses, which will use ARCGIS and statistical packages. Our dedicated laboratory is in MS 4.03.42 and has 24 computers. In addition, we share a laboratory with Sociology in MS 3.02.54. This lab has 26 computers and an instructor workstation. Also, a new COLFA computing laboratory is also being installed on the second floor of the MH building on the 1604 campus. Finally, given the synergy between physical geography and archaeology (both are intimately

concerned with the role of climate and landforms on human settlement patterns), it may be possible for our new environmental/physical geographer (Dr. Melanie Stine) to have temporary laboratory working and storage space in the Center for Archaeological Research. A personal conversation with the Director of the Center (Dr. Steve Tomka) has reinforced this synergy. In addition, he has agreed to look into this possibility, which would have to be approved by his boss. It should be emphasized that physical geography laboratory space is desirable but not essential for the implementation of the Geography MA program. We currently have only one tenure-track physical geographer (Dr. Stine). Her primary teaching obligations in the program will be in a required course (Environmental Landscape Management) with a general focus that will not require laboratory space. Her instructing specialized graduate courses (e.g., Biogeography) and theses, that might require a laboratory, will evolve in relation to student backgrounds and demand. Dr. Stine will definitely work on this issue---making the contacts, specifying her exact needs, and (if necessary) seeking funding---after she arrives. She has emphasized that for her own personal research, lab space would be nice. However, the initial lack of a laboratory should not in any sense be considered a crucial factor in the implementation of our program.

Equipment

Equipment needs for the program will be split between (1) new computers for the departmental computer lab (two thirds), and (2) field equipment for use in the graduate physical geography courses (one third). See below, in the Costs and Funding section.

- F. Accreditation – If the discipline has a national accrediting body, describe plans to obtain accreditation or provide a rationale for not pursuing accreditation.

Dr. Michael Solem of the AAG headquarters in Washington DC states that “At present there is no formal accreditation process for geography and GISci programs” (email of 4-1-2013).

III. Costs and Funding

Five-Year Costs and Funding Sources - Use this table to show five-year costs and sources of funding for the program.

Five-Year Costs		Five-Year Funding	
Personnel ¹		Reallocated Funds	\$ 21,875 ^g
GAR- one-course release per year, for five years	\$ 35,000 ^a		
Facilities & Equipment	\$ 5,250 ^b	Anticipated New Formula Funding ³	(\$103,719) ^e \$ 21,875 ^f
Library, Supplies, and Materials	\$ 1,000 ^c	Special Item Funding	\$0
Other ²	2,500 ^d	Other ⁴	\$0
Total Costs	\$ 43,750	Total Funding	\$0

New Program Request Form for
Bachelor's and Master's Degrees
Page 16

^a Figured from senior faculty salary, 1-course release per year for 5 years.

^b (1) One new computer for departmental computer lab (@\$1500) + furniture @\$250 = \$1750.

(2) Field research equipment as follows (total \$3500):

Garmin Oregon 600 GPS Receivers \$399.99 USB cable 14.95, quantity 3

CST/Berger 864 Tripod 85.50, quantity 2

CST/Berger SAL 20 Automatic Level \$239.70, quantity 2

Transect tapes, Kenson English/metric open reel fiberglass tape, 100' \$23.85, quantity 5

Metric fiberc diameter tape \$38.25, quantity 3

Oakfield Model B Tube Sample Soil Probe 36" \$152.95, quantity 3

Specific gravity hydrometer \$21.95, quantity 5

Specific gravity hydrometer jar \$24.75, quantity 5

Dual Manufacturing Standard Soil Sieves \$54.75, quantity 6 (different size mesh)

Pocket Penetrometer \$55.75, quantity 3

Silva Starter 1-2-3 Compass \$11.50 (10.50, +10), quantity 20

^c Office supplies, materials, postage for use by GAR.

^d Recruitment costs (travel, brochures, etc.) for GAR.

^e Figured as follows: 48 FTSE for years 3-5 of program (13 + 15 + 20): see page 6) x 18 hours per FTSE = 864 hours x .75 (the estimated proportion of hours that would be taken in GRG courses) x \$160.06 current MA funding level per hour = \$103,719 of which only \$21,875 can be used in calculating funding for the proposed program (see next note)

^{f,g} \$21,875 is ½ of the \$43,750---all that can be paid from formula funding; the other \$21,875 will be obtained from reallocated funds from the Department and the Dean.

1. Report costs for new faculty hires, graduate assistants, and technical support personnel. For new faculty, prorate individual salaries as a percentage of the time assigned to the program. If existing faculty will contribute to program, include costs necessary to maintain existing programs (e.g., cost of adjunct to cover courses previously taught by faculty who would teach in new program).
2. Specify other costs here (e.g., administrative costs, travel).
3. Indicate formula funding for students new to the institution because of the program; formula funding should be included only for years three through five of the program and should reflect enrollment projections for years three through five.
4. Report other sources of funding here. In-hand grants, "likely" future grants, and designated tuition and fees can be included.

APPENDIX ONE:
**LIST OF THE SAN ANTONIO PLACES OF EMPLOYMENT AND THE JOBS HELD BY
RECENT GRADUATES OF TSU IN THE SAN ANTONIO METROPOLITAN AREA:**

Environmental Geography:

San Antonio Water System (SAWS):
 Manager, Water Resources
 Well Mitigation Specialist
 Manager, Conservation Department
VATC Associates, Inc.: Environmental Scientist and Project Manager
Edwards Aquifer Authority: Environmental Coordinator
Frost Geosciences: Environmental Geo-technician
Booz-Allen-Hamilton, Strategy and Technology Consulting: Consultant
Edwards Aquifer Authority: Environmental Coordinator
Guadalupe-Blanco River Trust: Executive Director

Land Use Planning:

City of SA Development Service Center:
Planner and Board of Adjustment Supervisor
 Special Projects Coordinator
 Planning Manager
Public Management, Inc.: Planner

Geospatial Technology:

HALFF (Engineers and Architects): GIS Analyst
Hawkins Remote Sensing and Exploration: GIS Specialist
J.M. Waller Associates: GIS Analyst

Geography Education:

Canyon High School: Geography Teacher
John Marshall High School: Geography Teacher
San Antonio Independent School District: Lead High School Teacher
Geospatial Training Services LLC: President and CEO
Guadalupe-Blanco River Authority: Education Coordinator
Southwest High School: World Geography Teacher
San Antonio College: Adjunct Faculty Member
Edwards Aquifer Authority: Education Associate
New Braunfels High School: Geography Teacher

Business Geography:

ESRI: Technical Marketing Specialist
 Technical marketing Manager
 Booz-Allen-Hamilton, Strategy and Technology Consulting: Associate
 New Braunfels Utilities: Business Development Manager

Real Estate & Construction:

Franklin Construction: Project Coordinator
Roth Enterprises: National Manager for Vocational Sales

Other Jobs:

Phoenix Disaster Services: President
Matkin Hoover Engineering: Survey Technician

These positions suggest the range of job opportunities for trained geographers in the San Antonio metropolitan area. Jobs in environmental geography and geospatial technology will be especially suited to graduates in Environmental Geography and GIS, whereas jobs in land use planning, geographic education, business, real estate, and urban planning will be suited to graduates who have focused on Behavioral/ Cultural/ Economic Geography.

**APPENDIX TWO:
LETTERS SOLICITED FROM UTSA GEOGRAPHY BA GRADUATES CONCERNING
THE VALUE OF AN MA PROGRAM IN GEOGRAPHY AT UTSA**

I know of several individuals either going through the graduate program at the same time as me or working for COSA now that attempted to gain their Graduate degree in geography at Texas State University in San Marcos, only to drop out due to the difficulties of having to maintain employment and other obligation while attending school so far away. I can understand the difficulties because I had to quit my San Antonio employment in order to handle the challenges of academia in conjunction with a 120 mile daily round trip. It would have been much easier and less of an economic burden if I could have attended graduate school at UTSA (Kristine Egan, graduated from UTSA in 1997).

I write in support of a graduate program in geography at the University of Texas at San Antonio. The unmet need for geographic education and research in the San Antonio area would be well served by such a program, and it would further benefit UTSA in its goal towards becoming a tier-one research institution. As an alumna, former President of the Geography Society at UTSA, and as a working geographer, my opinion is based on personal, academic, and professional experiences.

Graduating with a BA in Geography from UTSA in 2005, I went on to graduate studies at Texas State University in San Marcos at the encouragement of Dr. Richard Jones and Dr. John Morris. Unaware of the breadth of opportunities in the field of geography, I would likely have resigned myself to a life of corporate sedition. The closest available geography program to San Antonio was in San Marcos and I eventually resigned myself to commute there (at much expense and hardship to myself and my family). For three years, I worked full time as an administrative associate at UTSA and commuted several times a week to San Marcos in the evenings to attend graduate classes.

Cooperation between the university and various state agencies and private organizations has increased the career and research opportunities for students at Texas State and could be similarly utilized at UTSA (which creates future funding opportunities and interest in the program). Entering the graduate program at Texas State, I felt insecure about my UTSA foundation and unsure how I would adapt to such a geography-rich, academic environment. To my relief, I discovered that my undergraduate experience in geography at UTSA prepared me so well that I was far and away above my peers from other schools. I gained both confidence as a geographer and a new pride in UTSA. I was one of only two students to graduate with a 4.0 GPA from the graduate program in 2008, and I feel that a good part of my success is due to the foundation I received from the scholarship and dedication of the UTSA geography faculty.

San Antonio needs a graduate program in geography. All other major Texas cities offer, at the least, a Masters degree in geography. Of all the cities in Texas, San Antonio would seem to be a natural choice for geographic education because of the many career opportunities and learning resources available here. Located along the Balcones Escarpment, a short drive to a myriad of state and national parks, and at the crossroads of several different physical ecologies, San Antonio is ideally situated for the advanced study of geographic concepts and specific issues. Water issues alone are enough to keep San Antonio geographers busy. Career opportunities include remote sensing (a growing field, particularly as contracted by various military bases), city planning/land use planning, nature tourism efforts, parks and wildlife workers, researchers of many migratory species, non-profit organizations, real estate development, waste management, etc., and they are all growing fields. In addition, the state of Texas continues to support and require increases in geographic education in public secondary schools. Geography is no longer a dead-end discipline; rather, it is becoming more important as human and Earth interaction becomes more complicated.

I currently work in the History Department at UTSA as support staff to the Graduate Advisor of Record and I am an adjunct professor of Geography at Northwest Vista College. I created a course, The Geography of North America, based on my academic background and travels, and I also teach a section of Physical Geography. Teaching geography to college students has been rewarding and my intention is to encourage the development of student critical thinking skills in recognizing themes in relationships, perspectives, and spatial awareness. Eventually, I would like to work on a doctorate in geography or geographic education, though limited financial resources and other considerations have delayed any progress towards that goal as of yet. While a PhD. program in geography would be ideal for my needs, development of a Masters at UTSA would give current students the ability to adequately prepare for competitive job markets and research opportunities. San Antonio has needed a program like this for some time, as evidenced by my acquaintance with other local geographers and by my own experience. Members of our geography faculty are well known and respected scholars and are eager to enrich the academic environment of UTSA by investment in advanced geographic studies. I believe that both San Antonio and UTSA will be all the better for it. (Andrea E. Trease, graduated in 2005).

New Program Request Form for
Bachelor's and Master's Degrees

Page 19

I love Geography. When I transferred to UTSA from Iowa State I was studying Ecology. I understood fundamentally that the world was not a conglomeration of discrete entities, forces, and events and therefore could not be studied as such. Although it was not yet the hot new scholarly paradigm that it is today, I knew that an interdisciplinary approach was necessary to understand the interconnectedness of man and the natural environment.

The problem for me was that Ecology didn't quite cut it either because it is limited to the natural world. Ecology couldn't explain international terrorism, unequal social development, racism, Balkanization, or repression. It also couldn't explain women's suffrage, globalization, or non-violent revolution. I tried out several disciplines, from Biology to Anthropology; Chemistry to Political Science, Sociology and Psychology in an attempt to find what I knew must be out there, a discipline that looked at all of the connections of man. I finally found it in Geography, specifically World Regional Geography. After the first week of class I changed my major and I have never looked back.

I graduated magna cum laude with honors in Geography in May of 2010. I feel that I have received a truly interdisciplinary education because of the nature of Geography. I have studied the physical environment with Dr's Morris and Lambert, the political environment with Dr. DeOliver, and the social environment with Dr. Jones and Mr. Houston. The low class size in comparison to Texas State and UT Austin has given me and my fellow Geography majors the ability to fully explore the areas of Geography which resonate most with each of us individually. The UTSA ideology of accessibility has provided me with the opportunity to seek out my professors' perspectives and advice, delve deeper into concepts, and pursue independent research, all of which would have been less likely in a more exclusive environment like UT Austin. This sense of accessibility prompted me to become more immersed in both my academic department and my school. Since I was so obviously part of the whole system and not just a number like I would be in either Texas State or UT Austin's mammoth programs, it felt only natural to take on leadership positions in both arenas. I ran for and was elected Senior Senator of my class and President of the Geography Society.

Now that I am nearing the end of my undergraduate studies, I realize that there is still so much left to learn. I would like to go to graduate school and study international human development within the scope of economic development. I am once again faced with the same issue I had when studying Ecology. It is obvious to me that the problems of international relations and development are interdisciplinary in nature and therefore must be viewed through an interdisciplinary lens. Programs specifically attuned towards the study of international relations and economic development miss the roots of these problems. They simply don't go deep enough.

You see, I have been spoiled by my study of Geography and its ability to answer my inevitable "why's". I have also been spoiled by the accessibility of my professors. I do not want to give up either. Unfortunately, there is not a Geography graduate program at UTSA so I am faced with a dilemma. I have to choose whether to give up my Geography studies and, as such, turn my back on the discipline that I know holds the answers to my questions; or, I have to become a number and pursue the study of Geography in a school where I will simply be another degree recipient to churn out. After working so hard to find the right place and path for me, neither answer is satisfactory and I feel somewhat betrayed by my inability to continue on in the pursuit of knowledge that would not only benefit me but hopefully my community, my state, my country, my world.

It is my hope that UTSA will eventually develop a graduate program in Geography. UTSA is not just a duplication of Texas State or UT Austin. UTSA has its own traditions of accessibility and community which are tied into the history of San Antonio. This sense of community is what I was seeking when I came to UTSA. Hopefully, in the future, students like myself will have the opportunity to stay (Jennifer Bigler, graduated in 2010).

Signature Page

1. Adequacy of Funding – The chief executive officer shall sign the following statement:

I certify that the institution has adequate funds to cover the costs of the new program. Furthermore, the new program will not reduce the effectiveness or quality of existing programs at the institution.

Chief Executive Officer

Date

2. Board of Regents or Designee Approval – A member of the Board of Regents or designee shall sign the following statement:

On behalf of the Board of Regents, I approve the program.

Board of Regents (Designee)

Date of Approval

3. Board of Regents Certification of Criteria for Commissioner of Assistant Commissioner Approval – For a program to be approved by the Commissioner or the Assistant Commissioner for Academic Affairs and Research, the Board of Regents or designee must certify that the new program meets the eight criteria under TAC Section 5.50 (b): The criteria stipulate that the program shall:

- (1) be within the institution's current Table of Programs;
- (2) have a curriculum, faculty, resources, support services, and other components of a degree program that are comparable to those of high quality programs in the same or similar disciplines at other institutions;
- (3) have sufficient clinical or in-service sites, if applicable, to support the program;
- (4) be consistent with the standards of the Commission of Colleges of the Southern Association of Colleges and Schools and, if applicable, with the standards or discipline-specific accrediting agencies and licensing agencies;
- (5) attract students on a long-term basis and produce graduates who would have opportunities for employment; or the program is appropriate for the development of a well-rounded array of basic baccalaureate degree programs at the institution;
- (6) not unnecessarily duplicate existing programs at other institutions;
- (7) not be dependent on future Special Item funding
- (8) have new five-year costs that would not exceed \$2 million.

On behalf of the Board of Regents, I certify that the new program meets the criteria specified under TAC Section 5.50 (b).

Board of Regents (Designee)

Date