DEGREE PROGRAM

College/School(s) offering this degree: School of Letters and Sciences (SLS)

Unit(s) within college/school responsible for program: Science, Mathematics and Social Science

If this is for an official joint degree program, list all units and colleges/schools that will be involved in offering the degree program and providing the necessary resources: N/A

Proposed Degree Name: Global Technology and Development

Master’s Degree Type: Master of Science (MS)

Proposed title of major: Global Technology and Development (GTD)

Is a program fee required? Yes ☐ No ☒

Requested effective term: Fall Semester 2012
(The first semester and year for which students may begin applying to the program)

PROPOSAL CONTACT INFORMATION
(Person to contact regarding this proposal)

Name: Gary Grossman
Title: Associate Professor
Phone: 727-9533
email: gary.grossman@asu.edu

DEAN APPROVAL

This proposal has been approved by all necessary unit and College/School levels of review, and the College/School(s) has the resources to offer this degree program. I recommend implementation of the proposed degree program. (Note: An electronic signature, an email from the dean or dean’s designee, or a PDF of the signed signature page is acceptable.)

College Dean name: Frederick Coray
College Dean signature: [Signature]
Date: 11/8/2011

(if more than one college involved)

College Dean name: [Signature]
College Dean signature: [Signature]
Date: [Signature]
ARIZONA STATE UNIVERSITY
PROPOSAL TO ESTABLISH A NEW GRADUATE DEGREE

This proposal template should be completed in full and submitted to the University Curriculum Planning email account [mail to: curriculumplanning@asu.edu]. It must undergo all internal university review and approval steps including those at the unit, college, and university levels. A program may not be implemented until the Provost’s Office notifies the academic unit that the program may be offered.

DEGREE PROGRAM INFORMATION

Master’s Type: Master of Science (MS)
(E.g. MS, MA, MAS or PSM)

Proposed title of major: Global Technology and Development (GTD)

1. PURPOSE AND NATURE OF PROGRAM
   A. Brief program description (This is a catalog type description of no more than 250 words. Include the distinctive features of the program that make it unique. Do not include program or admission requirements.)

   The MS in Global Technology and Development is a program in international social, economic and political development, which highlights the variable of technology in these development processes, and analyzes change within the context of the current era of globalization. One of the central concerns addressed in the program is the global disparity in wealth and access to resources and basic needs, both between and within countries. Students are encouraged to pursue unique research questions in the developed or the developing worlds, which engage them in social science research on issues related to technology and human socioeconomic and political development. Students take theoretical, research, policy and regional studies courses to prepare them for their master’s culminating experience requirement of a thesis, applied project, or comprehensive examination, depending upon the interests and goals of each student.

   B. Total credit hours required for the program: 30

   C. Are any concentrations to be established under this degree program?  □ Yes  X No

2. PROGRAM NEED. Explain why the university needs to offer this program (include data and discussion of the target audience and market).

   This program currently exists as a concentration under the Master of Science in Technology (MSTech) program in the College of Technology and Innovation (CTI), and has done so since the fall semester of 2001. Since that time, the Global Technology and Development concentration has admitted 72 students, 19 of which were began within the last two years, has maintained a yearly enrollment of around 30 students, has graduated 27 students since 2003 (7 more are close to finishing by spring or summer 2011), and has seen applications each semester almost doubled over the past two years. This steady enrollment, retention and graduation rate has been maintained with only two faculty members contributing only a portion of their teaching responsibilities and with only occasional administrative support over the past ten years. Feedback from applicants, students, and faculty indicates that as a concentration it is difficult to find in the ASU website and that it should be a degree program and gain due visibility. The CTI will discontinue GTD as a concentration under the MS in Technology degree program, if the M.S. in GTD is approved. (See attached letter of support from CTI Vice Provost and Dean, Mitzi Montoya)

   Graduates of the current concentration program have been employed in a variety of development-related fields, including the technology industry, the non-profit sector, and the government. Two graduates are currently working overseas for the U.S. State Department and U.S. Agency for International Development, and at least five graduates have gone on to pursue
and complete doctoral degrees. Over the decade, the GTD program has had 5 Fulbright Scholars, including two incoming students, one outgoing student, one outgoing faculty member, and one current faculty member.

The current program has also had positive relationships with the Peace Corps, which would continue to be a significant market for recruiting students. GTD has five graduates that entered the program after having served in the Peace Corps, and one student currently taking a leave of absence to serve in Morocco; faculty are working with him and he will finish his thesis upon return to ASU. Given this, in the past GTD has been involved with the Peace Corps Fellowship Program, and recently the Peace Corps office in Washington, D.C. has encouraged GTD faculty to develop a proposal to create an International Masters – where students integrate their Peace Corps service with their GTD graduate studies. ASU currently has only one such program in the School of Sustainability. This would be a significant recruitment tool, since potential volunteers interested in graduate degrees would locate GTD at the same time that they are inquiring about the Peace Corps.

3. IMPACT ON OTHER PROGRAMS. List other academic units that might be impacted by the proposed program and describe the potential impact (e.g., how the implementation of this program might affect student headcount/enrollment, student recruitment, faculty participation, course content, etc. in other programs). Attach letters of collaboration/support from impacted programs.

The main impact will be on course enrollments. The programs listed below have allowed GTD students into their graduate classes, and letters of support to continue this practice are attached.

The Professional Science Master’s (PSM) in Science and Technology Policy in the College of Liberal Arts and Sciences and the Consortium for Science, Policy and Outcomes (CSPO) contains courses and themes of interest and relevance to GTD. GTD faculty, working in CSPO with PSM faculty, have already agreed on several courses in which PSM and GTD students can enroll in each other’s courses to fulfill requirements in their own degree programs.

The MSTech, with a concentration in Environmental Technology Management (ETM), has invited GTD students into its courses from the inception of the GTD concentration. Students can take several of ETM courses to fulfill requirements, and ETM faculty have reported that they enrich the classes bringing in the socioeconomic and political development perspective, as well as the global. The courses would continue to be available to GTD students. The concentration of Technology Management (OMT) has also invited GTD students to take classes.

GTD students have also taken Urban and Environmental Planning (PUP) courses related to transportation planning and the environment.

4. PROJECTED ENROLLMENT How many new students do you anticipate enrolling in this program each year for the next five years? Please note, The Arizona Board of Regents (ABOR) requires nine masters and six doctoral degrees be awarded every three years. Thus, the projected enrollment numbers must account for this ABOR requirement.

5-YEAR PROJECTED ANNUAL ENROLLMENT (NOTE: These figures are based on the current enrollment in the GTD concentration of approximately 25 students, and the average graduation of 9 students every 3 years; we therefore project an increasing enrollment and graduate number with the independent degree program.

Please utilize the following tabular format. | 1st Year | 2nd Year | 3rd Year | 4th Year | 5th Year |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Yr 1 continuing + new entering)</td>
<td>(Yr 1 &amp; 2 continuing + new entering)</td>
<td>(Yrs 1, 2, 3 continuing + new entering)</td>
<td>(Yrs 1, 2, 3, 4 continuing + new entering)</td>
<td></td>
</tr>
<tr>
<td>Number of Students Majoring (Headcount)</td>
<td>15</td>
<td>20</td>
<td>30</td>
<td>40</td>
</tr>
</tbody>
</table>
5. STUDENT LEARNING OUTCOMES AND ASSESSMENT
   A. List the knowledge, competencies, and skills students should have when they graduate from the proposed degree program. (You can find examples of program Learning Outcomes at [http://www.asu.edu/oue/assessment.html](http://www.asu.edu/oue/assessment.html)).

In line with the mission of the School of Letters and Sciences, as well as ASU’s New American University, students will graduate from this program with a global perspective on political and socioeconomic development and change, providing them with a foundational understanding of global dynamics in the 21st century, regardless of their particular area of interest. They should be able to apply this knowledge professionally. Specific learning outcomes include:

**Learning Outcome #1**

Students will demonstrate knowledge of the main theories of socioeconomic and political development, and will elaborate their own critical perspectives on these theories and their applications globally.

**Assessment:**

- Pass GTD core seminars in which they must articulate their comprehension as well as their own views with a 3.0 GPA or better.
- Pass restricted electives included in required area study coursework to strengthen students’ understandings of different regions of the world, with a 3.0 GPA or better.
- Students who opt for the Comprehensive Exam will answer questions related to this theme both orally and in writing.
- Students who opt for the Thesis or the Applied Project will demonstrate in their written document knowledge of the relevant area of research and theoretical literature from the field of socioeconomic and political development, or related fields.

**Learning Outcome #2**

Students will have the ability to evaluate new technologies, as well as technology policy, and assess their potential impact on social, economic and political change in a variety of different cultural, political and socioeconomic contexts.

**Assessment:**

- Pass GTD core seminars, which present historical cases of technology and development, with a 3.0 GPA or better.
- Pass restrictive elective courses in technological systems, applied technology, and science and technology policy, which will be reflected on their Programs of Study, with a 3.0 GPA or better.
- Pass restrictive electives courses that focus on technology and development in different regions of the world, with a 3.0 GPA or better.
- Successful completion of the culminating experiences (Comprehensive Exam, Applied Project, or Thesis) all include elements of technological change, whether theoretical or applied.

**Learning Outcome #3**

Students will be proficient at analyzing and gaining knowledge about international development from multi-disciplinary perspectives.

- GTD core courses include literature from a wide variety of disciplines within the social science, as well as other areas of science and technology.
• In addition to courses, each chosen culminating experience requires students to identify and analyze literature from more than one discipline.
• In consultation with program faculty advisors students will design their Programs of Study with restricted and free electives from different departments that will be chosen to give them a breadth of interdisciplinary knowledge in social, political, economic and technological systems, as well as in depth study of specific regions and issues.

Learning Outcome #4
Students will demonstrate the ability to identify research literature relevant to a specific problem or question, and to discuss and evaluate that literature.

Assessment;
• GTD core seminars contain a culminating requirement to conduct and write a literature review on a chosen topic, related to seminar material, culminating in a required paper, and an end of semester peer review of the papers.
• All papers in GTD core seminars require students to critique and discuss the assigned literature in the form of written papers.
• The thesis and applied project require a literature review chapter which students must show how their work fits into existing research.

Learning Outcome #5
Students will demonstrate the ability to identify problems in global socioeconomic or political development, and technology and its systems, and design theoretical or applied research projects.

• Students will take two GTD research methods classes, passing with a B or better.
• Students who opt for the Comprehensive Exam will respond in writing, and later defend orally, to a question requiring them to describe the research process in their area of interest.
• Students who opt for the Thesis will create and defend a full research proposal, followed by research and written document.
• Students who opt for the Applied Project will create a project grounded in a research process beginning with a problem statement, literature review and development of methodology.

B. Describe the plan and methods to assess whether students have achieved the knowledge, competencies and skills identified in the Learning Outcomes. (You can find examples of assessment methods at [http://www.asu.edu/oue/assessment.html](http://www.asu.edu/oue/assessment.html)).

The assessment section is integrated with the Learning Outcomes above.

6. ACCREDITATION OR LICENSING REQUIREMENTS (if applicable). Provide the names of the external agencies for accreditation, professional licensing, etc. that guide your curriculum for this program, if any. Describe any requirements for accreditation or licensing.
N/A

7. FACULTY, STAFF AND RESOURCE REQUIREMENTS
A. Faculty
i. Current Faculty. List the name, rank, highest degree, area of specialization/expertise and estimate of the level of involvement of all current faculty who will teach in the program.
The first two faculty members listed are core faculty, with responsibilities of administering the program and student admissions, teaching the GTD core classes, advising students and prospective applicants, and chairing and participating in committees.

The following faculty have agreed to be on the GTD faculty committee, which includes allowing students to take courses they offer in their departments, as appropriate for the GTD curriculum; participating on thesis, applied project and thesis committees; and advising the core faculty on curriculum and program related matters (indicated as 10% level of involvement).

Gary M. Grossman, Ph.D., Associate Professor, Sociology, Technology and Society, Development and Social Institutions, Education Development, Middle East, Europe (100%)

Mary Jane C. Parmentier, Ph.D., Senior Lecturer, International Studies, International Development, Middle East and North Africa, Latin America (100%)

Clark Miller, Ph.D., Associate Professor, Engineering, Science, Technology and Society, International Organizations, Science and Global Security (10%)

Joseph Herkert, Ph.D., Associate Professor, Engineering, Engineering Ethics, Science, Technology and Society (10%)

Mark Henderson, Ph.D., Professor, Engineering, College of Technology and Innovation, Director of Global Resolve (10%)

Netra Chhetri, Ph.D., Assistant Professor, School of Geographical Sciences and Urban Planning; Consortium for Science, Policy and Outcomes (10%)

Arnold Maltz, Ph.D., Associate Professor, Supply Chain Management, W.P. Carey School of Business (10%)

Gary Waissi, Ph.D., Professor, Technology Management, College of Technology and Innovation (10%)

Cecilia Menjivar, Ph.D., Cowden Distinguished Professor, School of Social and Family Dynamics (10%)

Kathy Nakagawa, Ph.D., Head of Faculty & Associate Professor, Asian Pacific American Studies/Culture, Society & Education, School of Social Transformation (10%)

Martin J. Pasqualetti, Professor, Geography, Energy and Environment, Climate Change (10%)

Mirna Lattouf, Ph.D., Senior Lecturer, Middle Eastern Studies, History, Women and Development (10%)

Gregg Zachary, Professor of Practice, Consortium for Science, Policy and Outcomes, and the Cronkite School of Journalism (10%)

ii. **New Faculty.** Describe the new faculty hiring needed during the next three years to sustain the program. List the anticipated hiring schedule and financial sources for supporting the addition of these faculty. **None required, with current teaching faculty and enrollment projections.**

iii. **Administration of the program.** Explain how the program will be administered for the purposes of admissions, advising, course offerings, etc. Discuss the available staff support.

The program will be administered by the School of Letters and Sciences, with faculty and staff from the School scheduling classes, advising students and handling...
admissions and plans of study. There is currently one SLS staff person identified for
administrative support, and the current faculty who engage in admissions and
advising would continue to do with no additional course release time. Currently one
senior lecturer has a 3/3 teaching load and the responsibility of program
administration.

B. Resource requirements to launch and sustain the program. Describe any new resources
required for this program’s success such as new staff, new facilities, new library resources, new
technology resources, etc.

None required

8. CURRICULAR STRUCTURE OF THE PROPOSED PROGRAM

A. Admission Requirements  The requirements listed below are Graduate College requirements.
Please modify and/or expand if the proposed degree has additional admissions requirements.

i. Degree. Minimum of a bachelor’s degree (or equivalent) or a graduate degree from a
regionally accredited College or University of recognized standing in a related field such as
Political Science, International Relations, Sociology, Anthropology, Economics,
Business, Education, Technology, Engineering, Life Sciences, Foreign
Languages/literature (i.e., topics related to global development, culture, and/or socio-
economic institutions)

Modify or expand, if applicable:

ii. GPA. Minimum of a 3.00 cumulative GPA (scale is 4.0=A) in the last 60 hours of a student’s
first bachelor’s degree program  Modify or expand, if applicable:

iii. English Proficiency Requirement for International Applicants. If applicable list any
English proficiency requirements that are higher than and/or in addition to the Graduate
College requirement. (See Graduate College website
http://graduate.asu.edu/admissions/international/english_proficiency):

iv. Required Admission Examinations.  
☐GRE  ☐GMAT  ☐Millers Analogies  ☒ None Required

v. Application Review Terms. Indicate all terms for which applications for admissions are
accepted and the corresponding application deadline dates, if any:

☑ Fall  Deadline (month/year): 6/2012
☑ Spring  Deadline (month/year): 11/2012
☑ Summer  Deadline (month/year): 3/2013

(NOTE: The program is anticipated to begin in the Fall Semester of 2012)

B. Degree Requirements. COMPREHENSIVE EXAM OPTION (Please see Appendix A and B for
thesis and applied project option requirements)

i. Total credit hours (cr hrs) required for the degree program: 30 credit hours

ii. Core courses. List all required core courses and total credit hours for the core (required
courses other than internships, thesis, dissertation, capstone course, etc). Omnibus number
courses cannot be used as core courses. Permanent numbers must be requested by
submitting course proposal to Curriculum ChangeMaker for approval.

<table>
<thead>
<tr>
<th>Course prefix &amp;</th>
<th>Course title (Core Courses)</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Total credit hrs for required core courses: 12 credit hours
<table>
<thead>
<tr>
<th>number</th>
<th>Course title</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTD 501</td>
<td>Global Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 503</td>
<td>Technology and the International Political System</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 505</td>
<td>Research Design in Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 506</td>
<td>Quantitative Analysis in Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

**Elective Courses - 12 credit hours (as outlined)**

**Restricted Electives (Group One): 6 credit hours**

Students Select Two from the Following List:

<table>
<thead>
<tr>
<th>number</th>
<th>Course title</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTD 510</td>
<td>Technology and Development in the Middle East</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
<tr>
<td>GTD 511</td>
<td>Technology and Development in Latin America</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
<tr>
<td>GTD 512</td>
<td>Technology and Development in North Africa</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>GTD 513</td>
<td>Technology and Development in Sub Saharan Africa</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
</tbody>
</table>

**Restricted Electives (Group Two): 6 credit hours**

Students Select Two from the Following List (must be from different areas):

<table>
<thead>
<tr>
<th>Course prefix &amp; number</th>
<th>Course title</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUP</td>
<td>Selected course at the 500 level each semester, for example: PUP 550 Transportation Planning and Environment, PUP 551 Transportation System Planning</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>OMT</td>
<td>Selected course at the 400/500 level each semester, for example OMT 540 International Management, OMT 570 Advanced Project Management, OMT 430 Ethical Issues and Technology</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>ETM</td>
<td>Selected course at the 500 level each semester, for example ETM 567 Information Technology and Emergency Management, ETM 540 International Environmental Law and Policy</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>HSD</td>
<td>Selected course at the 500 level each semester, for example HSD 501 Science and Technology Policy</td>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

(Please expand table as needed. Right click in white space of last cell. Select “Insert Rows Below”)

iii. Other program electives: 6 credit hours – (only if Comprehensive Exam is selected, otherwise final 6 credit hours for thesis or applied project options)

Provide a sample list of elective courses:

<table>
<thead>
<tr>
<th>Course prefix &amp; number</th>
<th>Course title</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTD, PUP, OMT</td>
<td>Any of the courses above if not used for restricted elective requirement</td>
<td>6</td>
<td>Y □ N □</td>
</tr>
</tbody>
</table>

Request to implement a new degree program
iv. 400-Level Courses. No more than 6 credit hours of 400-level coursework can be included on graduate student program of study.

1. Are 400-level ASU courses allowed on student program of study for this degree? ☑ Yes ☐ No

2. If yes, how many credit hours? 6

v. Culminating experience for the proposed program (please check all that apply and provide requested information):

<table>
<thead>
<tr>
<th>Required?</th>
<th>Brief description of the applied project or the capstone course, as applicable.</th>
<th>Course prefix and number</th>
<th>Credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ For this option</td>
<td>Comprehensive Examination-See Above</td>
<td>N/A</td>
<td>0 cr. hrs</td>
</tr>
</tbody>
</table>

vi. Master’s program comprehensive exams, please check all that apply (Please note: for doctoral programs, a written and an oral comprehensive exam are required.)

(If comprehensive exam option chosen, then written and oral elements required)

☑ Oral comprehensive exam is required – in addition to written exam

☐ No oral comprehensive exam required

vii. Committee: Required Number of Thesis or Dissertation Committee Members (must be at least 3 including chair or co-chairs): 3

viii. Foreign Language Exam.

Foreign Language Examination(s) required? ☐ Yes ☑ No

If yes, list all foreign languages required:

ix. Course Prefix(es) Provide the following information for the proposed graduate program.

a. Will a new course prefix(es) be required for this degree program? ☐ Yes ☑ No

b. If yes, complete the Course Prefixes / Subjects Form for each new prefix and submit it as part of this proposal submission.

x. New Courses Required for Proposed Degree Program. Provide course prefix, number, title, and credit hours and description for any new courses required for this degree program.

Note: In all of these GTD area studies courses the overall goal is for students to apply the theories and concepts gained in the core seminars, to real world problems in specific regions of the world.

Thus, in each course, students will study the significant historical trends and events that have shaped the region, while evaluating the historical and regional differences among the nation-states of the region that help explain its complexity and diversity. With this foundation, they compare and appraise the current development issues facing the nation-states of the region, and the solutions that are being implemented, indicating development priorities for the region.
GTD 510 Technology and Development in the Middle East
GTD 511 Technology and Development in Latin America
GTD 512 Technology and Development in North Africa
GTD 513 Technology and Development in Sub Saharan Africa
APPENDIX A - Degree Requirements: THESIS Culminating Experience Option

Total credit hours required for the degree program: **30 credit hours**

Total credit hours for required core courses: **12 credit hours**

<table>
<thead>
<tr>
<th>Course prefix &amp; number</th>
<th>Course title (Core Courses)</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTD 501</td>
<td>Global Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 503</td>
<td>Technology and the International Political System</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 505</td>
<td>Research Design in Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 506</td>
<td>Quantitative Analysis in Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

**Elective Courses - 12 credit hours (as outlined)**

**Restricted Electives (Group One): 6 credit hours**

Students Select Two from the Following List:

<table>
<thead>
<tr>
<th>Course prefix &amp; number</th>
<th>Course title</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTD 507</td>
<td>GTD in the Middle East</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
<tr>
<td>GTD 508</td>
<td>GTD in Latin America</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
<tr>
<td>GTD 509</td>
<td>GTD in North Africa</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>GTD 510</td>
<td>GTD in Sub Saharan Africa</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
</tbody>
</table>

**Restricted Electives (Group Two): 6 credit hours**

Students Select Two from the Following List:

<table>
<thead>
<tr>
<th>Course prefix &amp; number</th>
<th>Course title</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUP</td>
<td>Selected course at the 500 level each semester</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>OMT</td>
<td>Selected course at the 400/500 level each semester</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>ETM</td>
<td>Selected course at the 500 level each semester</td>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

400-Level Courses. No more than 6 credit hours of 400-level coursework can be included on graduate student program of study.

3. Are 400-level ASU courses allowed on student program of study for this degree? ☑ Yes ☐ No

4. If yes, how many credit hours? 6

**Culminating experience – 6 credit hours**

<table>
<thead>
<tr>
<th>Required?</th>
<th>Brief description of the applied project or the capstone course, as applicable.</th>
<th>Course prefix and number</th>
<th>Credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis (master’s only) ☑ for this option</td>
<td>Students must write and pass oral defense of a thesis proposal, followed by research, a final written document, and final oral defense.</td>
<td>GTD 599</td>
<td>6 credit hrs</td>
</tr>
</tbody>
</table>

Request to implement a new degree program
APPENDIX B - Degree Requirements: APPLIED PROJECT Culminating Experience Option

**Total credit hours required for the degree program: 30 credit hours**

<table>
<thead>
<tr>
<th>Course prefix &amp; number</th>
<th>Course title (Core Courses)</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTD 501</td>
<td>Global Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 503</td>
<td>Technology and the International Political System</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 505</td>
<td>Research Design in Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>GTD 506</td>
<td>Quantitative Analysis in Technology and Development</td>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

**Elective Courses - 12 credit hours (as outlined)**

**Restricted Electives (Group One): 6 credit hours**

Students Select Two from the Following List:

<table>
<thead>
<tr>
<th>Course prefix &amp; number</th>
<th>Course title</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTD 507</td>
<td>GTD in the Middle East</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
<tr>
<td>GTD 508</td>
<td>GTD in Latin America</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
<tr>
<td>GTD 509</td>
<td>GTD in North Africa</td>
<td>3</td>
<td>Yes</td>
</tr>
<tr>
<td>GTD 510</td>
<td>GTD in Sub Saharan Africa</td>
<td>3</td>
<td>Yes (598 now)</td>
</tr>
<tr>
<td>GTD 511</td>
<td>GTD in Asia</td>
<td>3</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Restricted Electives (Group Two): 6 credit hours**

Students Select Two from the Following List:

<table>
<thead>
<tr>
<th>Course prefix &amp; number</th>
<th>Course title</th>
<th>Credit hours</th>
<th>New course?</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUP</td>
<td>Selected course at the 500 level each semester</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>OMT</td>
<td>Selected course at the 500 level each semester</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>ETM</td>
<td>Selected course at the 500 level each semester</td>
<td>3</td>
<td>No</td>
</tr>
</tbody>
</table>

**400-Level Courses.** No more than 6 credit hours of 400-level coursework can be included on graduate student program of study.

5. Are 400-level ASU courses allowed on student program of study for this degree? [ ] Yes [ ] No

6. If yes, how many credit hours? 6

**Culminating experience – 6 credit hours**

<table>
<thead>
<tr>
<th>Applied Project (master’s only)</th>
<th>Required?</th>
<th>Brief description of the applied project or the capstone course, as applicable.</th>
<th>Course prefix and number</th>
<th>Credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☑</td>
<td>Students must write and pass an oral defense of a project proposal, to include a problem statement, literature review and methodology; the completed project must include a completed written document and an oral defense.</td>
<td>GTD 593</td>
<td>6 credit hrs</td>
</tr>
</tbody>
</table>
Dear Maria:

This letter is intended to indicate my support for the proposal to establish the Global Technology and Development (GTD) program, as a Master of Science degree in the School of Letters and Sciences. GTD has been a concentration area of the Master of Science in Technology degree and managed by CTI since 2001. I have discussed this matter with Fred Corey, Director of the School of Letters and Sciences and faculty from the College of Technology and Innovation and the School of Letters and Sciences discussed this as well. Arrangements have been made by our respective faculties to share resources in encouraging excellence in both programs. It is my view that programs in both academic units will be strengthened by the acceptance of this proposal.

Please let me know if I need to send a hard copy on letterhead in the mail.

Thanks –

Mitzi

Mitzi M. Montoya, PhD
Vice Provost and Dean, College of Technology & Innovation
Arizona State University
7231 East Sonoran Arroyo Mall – Suite 330 Santan Hall
Mesa, AZ 85212
Tel: 480.727.1935

To: Gary Grossman, Director, Global Technology and Development

From: Clark A. Miller, Associate Director, Consortium for Science, Policy & Outcomes

Re: Proposed Development of GTD as a Stand-Alone Degree in School of Letters and Sciences

Date: September 16, 2011

As Chair of the Executive Committee of the PhD in Human and Social Dimensions of Science and Technology and director of the Professional Science Master’s in Science and Technology Policy, I write to strongly endorse your proposal to establish Global Technology and Development as a stand-alone Master’s Degree in the School of Letters and Sciences.

I am willing to serve on the program faculty advisory committee and to take on duties as needed.

I see significant potential for cooperation between the new GTD program and the two degrees that I help coordinate. Students in the GTD program are welcome to participate in many of our courses, for example, and I anticipate that our students will continue to take GTD courses as electives. I also hope that we can coordinate in joint recruiting initiatives and that appropriate GTD students will consider applying for the HSD PhD program after completing their Master’s degree. I would also welcome opportunities to explore joint professional development activities and new courses that serve the needs of both programs.
To: Gary Grossman, Director of GTD Program

From: Joseph Herkert, Lincoln Associate Professor of Ethics and Technology

Re: Proposal to Establish GTD as a stand-alone Masters program in SLS

Date: September 8, 2011

I write to strongly endorse your proposal to establish the Global Technology and Development Masters as a stand-alone major in the School of Letters and Sciences.

I am willing to serve on the program faculty advisory committee and to take on duties as needed.

As you know, I am chair of the Science, Technology and Ethics track in the MA in Applied Ethics and Professions program and see great potential for cooperation with the GTD program. For example, I would welcome your students in the required course for the track, HSD 598 – Science, Technology and Ethics (one of your students has already taken this course). I would also be interested in exploring with you development of new courses that would serve the needs of both of our programs.
September 15, 2011

Dr. Gary Grossman, Director
Global Technology and Development
Consortium for Science, Policy and Outcomes
School of Letters and Sciences
Arizona State University

Dear Gary,

Thank you for the opportunity to participate in the Faculty Committee that will advise you and Dean Fred Corey about the Global Technology and Development program in the School of Letters and Sciences. I would be happy to participate, particularly in working with students and helping to build connections between the School of Social Transformation and your program.

I look forward to working with you, Dean Corey and the rest of the Faculty Committee. Thank you again for the opportunity to participate—and congratulations on the upcoming 10 year anniversary of the program!

Sincerely,

Kathy Nakagawa, PhD
Head of Faculty & Associate Professor
Asian Pacific American Studies | Culture, Society & Education
September 9, 2011

Dr. Gary M. Grossman
Director, Global Technology and Development
School of Letters and Sciences
Arizona State University
P.O. Box 856603

Dear Gary:

I pleased to learn that we are moving forward with the proposal to establish a Master of Science in Global Technology and Development. As a member of the School of Geographical Sciences, I can think of few programs for which I would have more natural support.

As you know, I have been involved with the GTD program from its inception, and I fully support this move toward a MS degree.

I am, of course, willing to continue participating in any way I can, including as a member of the ‘faculty committee’.

Best wishes,

Mike

Martin J. (Mike) Pasqualetti
Professor
To: Gary Grossman, Director of GTD Program

From: Cecilia Menjivar, Cowden Distinguished Professor, SSFD

Re: Proposal to Establish GTD as a stand-alone Master's program in SLS

I write to strongly endorse your proposal to establish the Global Technology and Development Master's as a stand-alone major in the School of Letters and Sciences.

I would also like to express my willingness to serve on the program's faculty advisory committee and to perform other necessary duties as they come up.

I would also welcome the opportunity to work with your students. As someone with development as an area of concentration, I am always happy to work with students with similar interests.
From: Gary Waissi
Sent: Wednesday, September 14, 2011 5:03 PM
To: Gary Grossman
Cc: Mark Henderson
Subject: RE: GTD Masters Degree

Dear Professor Grossman,

With this email I confirm that I am interested in serving on the Master in Global Technology and Development (GTD) degree program faculty committee.

Sincerely,

Gary Waissi
To: Gary Grossman, Director of GTD Program

From: Mark Henderson, Director GlobalResolve, Professor of Engineering

Re: Proposal to Establish GTD as a stand-alone Masters program in SLS

Date: September 27, 2011

I strongly endorse your proposal to establish the Global Technology and Development Masters program in the School of Letters and Sciences. I look forward to helping in any way I can including serving on the program faculty advisory committee.

As Executive Director of GlobalResolve, I am enthusiastic about ways we can collaborate to prepare students with both Global Awareness and Entrepreneurship skills. Our goal is to help reduce poverty in the developing world by designing new technologies to solve current problems and using those solutions to help create new community-based sustainable business ventures. We look forward to teaming with the GTD MS students in our projects and our trips to emerging economies. In addition, we are starting the new TEM program which has a Social Entrepreneurship option and I believe your MS program would be a good progression for our graduates in TEM.

Thanks for including us in the discussion and I look forward to further partnering.
September 1, 2011

Gary M. Grossman, Ph.D.
Associate Professor/Director
Global Technology and Development
School of Letters and Sciences
Arizona State University
P.O. Box 875603
1120 S. Cady Mall Interdisciplinary B- Room 366
Tempe, AZ 85287-5603

Dear Gary:
First, good luck with this move; I am sure it will be just as successful, if not greater, as the first ten years. I am aware of and support the proposal to establish a Master of Science in Global Technology and Development. I am enthusiastically willing to participate in the “faculty committee” which will advise the director, Dr. Gary Grossman, and the dean, Dr. Fred Corey, concerning the Global Technology and Development program in the School of Letters and Sciences.

I also understand that participation on the faculty committee can be as engaged or loose as time and my other responsibilities permit; further, I am especially willing to participate on a student committee when interests coincide.

Feel free to contact me if anything else is needed.

M. Lattouf, Ph.D.
Humanities Program
mirna.lattouf@asu.edu
September 2, 2011

Dr. Gary Grossman
Director, Global Technology and Development

Dear Gary:

I am happy to support the formation of a standalone Master’s in Global Technology and Development in the School of Letters and Sciences. I think this should be a valuable degree, and I have been pleased with the caliber of student who have been involved in your program.

I look forward to participating on the faculty committee for the program, and especially as there is overlap with my Department – Supply Chain Management. I expect we will have numerous interests in common.

My best wishes on this important step, and please let me know how I can be of assistance.

Sincerely,

Arnold Maltz, Ph. D.
Associate Professor, Supply Chain Management
W. P. Carey School of Business
Gary and Mary Jane:

I'm writing to inform you that I am willing and able to support the GTD program and its students by drawing on my expertise in technology, development and sub-Saharan Africa. In this regard, I am happy to serve on student and faculty committees organized by the program, as appropriate.

These activities are entirely consistent, and supportive of, my role as a professor of practice at both the Cronkite School and the Consortium for Science Policy & Outcomes.

Please call on me should you need any additional information.

Sincerely, Gregg Pascal Zachary
September 9, 2011

Dr. Gary Grossman, Director
Global Technology and Development

Dear Gary:

It is with great enthusiasm that I write this letter in support of the establishment of Master degree program in Global Technology and Development (GTD) in the School of Letters and Sciences (SLS). I am sure this program will be able attract students with wide range of interest including international development.

I look forward to join as faculty committee and work closely with you to achieve the goals of the GTD program. I also hope to bring synergy between programs that I am affiliated with, especially the Human and Social Dimensions of Science and Technology and Environment and Social Science program.

Sincerely,

Netra Chhetri, Ph. D.
Assistant Professor
School of Geographical Sciences and Urban Planning and
Consortium for Science, Policy Outcomes