This template is to be used only by programs that have received specific written approval from the Provost’s office to proceed with internal proposal development and review. The proposal template should be completed in full and submitted to the University Provost’s Office [mailto: 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.

College/School/Institute: College of Technology and Innovation

Department/Division/School: Technological Entrepreneurship and Innovation Management

Proposing Faculty Group (if applicable): N/A

Is this an official joint degree program? No, this is not a joint degree program

Degree type: BS-Bachelor of Science Degree

Name of degree program (major): Health Systems Management

Is any concentration to be established under this degree program? No, concentrations will not be established

A separate “Proposal to Establish an Undergraduate Concentration” is required for each concentration.

Is a program fee required? No, a program fee is not required

Requested effective catalog year? 2014-15

Delivery method: On-campus only (ground courses and/or iCourses)

Once students elect a campus or On-line option, students will not be able to move back and forth between the on-campus and the ASU Online options. Approval from the Office of the Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online.

Proposal Contact
Name: Craig Thatcher
Phone number: 480-727-4090
Email: Craig.Thatcher@asu.edu

Dean Approval(s)
This proposal has been approved by all necessary unit and College/School levels of review. I recommend implementation of the proposed program.

College/School/Division Dean name: Mitzi Montoya
Signature: See attached email approval
Date: / /20

An electronic signature, an email from the dean or dean’s designee, or a PDF of the signed signature page is acceptable.
1. Purpose and Nature of Program

Provide a brief program description. Include the distinctive features of the program that make it unique.

The BS in Health Systems Management will provide students with a unique opportunity to develop a marketable skill set in health systems and provide flexibility by allowing students to select from two focus areas: Information Technology Management or Technology and Entrepreneurship Management. (Both of these focus areas utilize existing CTI offerings.) The degree offers a multidisciplinary educational approach to the development of health system leaders, technologists, and entrepreneurs whose decisions are evidence-based. Students will receive a strong foundation in health systems, technology, business, and consumer-behavior, with an emphasis on innovation and service development. The degree is designed for students who want to enter into the health industry in an administrative capacity. The objective of the Health Systems Management (HMS) degree is to bring together information systems analysis and design, systems modeling, technology innovation and project management as well as entrepreneurship to encourage application of this knowledge for creation of innovative solutions and processes to address health system problems at multiple levels within an organization or a network of organizations. Students will develop management skills and knowledge of the complex issues facing health systems, enabling development of solutions improving effectiveness of health systems. By improving processes, adopting best-practices, evaluating and adopting technologies, program graduates will have the skills to transform current health systems or individual health organizations into more efficient and agile, organizations and systems equipped to compete globally.

2. Student Learning Outcomes and Assessment Methods

A. Knowledge, competencies, and skills

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))

After completion of the BS degree in Health Systems Management, the student will be able to demonstrate the following.

**Health Systems Competencies**

1. Characterize the role of health system business practices and its impact on the delivery of health care.
2. Describe different health care models and systems.
3. Implement innovative models to transform health systems.
4. Evaluate the effect of health systems legislation on health science professionals.
5. Critically evaluate journal articles related to health and health systems.
6. Apply ethical reasoning to solve problems in the health systems environment.
7. Identify cultural strengths and barriers that influence the utilization of health system services.
8. Develop strategies for delivery of culture-specific systems of care based on the evaluation of cultural assessment data.
9. Apply critical thinking skills with respect to evaluation of non-traditional health systems.
Information Technology Management Focus Area Competencies

1. Demonstrate application of information technology to acquisition, modeling, and use of information in health systems.

2. Analyze an information technology problem and provide solutions appropriate to a specific health system.

3. Integrate information technology-based solutions into the health systems environment.

4. Implement information technology best practices and standards to benefit specific health systems.

5. Design computer-based solutions for the health system environment.

6. Function effectively on a team and communicate effectively to accomplish an information technology solution in a team environment.

7. Explain and evaluate professional, ethical, legal, security, and social issues and responsibilities relevant to information systems and health systems management.

8. Identify and analyze health system needs and select, create, evaluate, and administrate the most appropriate computer-based systems.

Technology and Entrepreneurship Management Focus Area Competencies

1. Demonstrate and formulate strategies in technology to innovate within health system enterprises.

2. Build and maintain health system customer networks with emphasis on developing a market identity.

3. Implement financial resource management for health systems.

4. Implement improved business models for health systems.

5. Use management strategies for planning, valuation, and financial trends to improve health systems.

6. Deliver health systems enterprise management including productivity, strategic management, global environment, forecasting, capacity planning, new technologies, supply-chain management, inventory control, and scheduling.

7. Implement health systems strategic plan development.

8. Implement tools and techniques for effective design and management of the health system.

9. Generate and evaluate product and service business ideas for health systems.

10. Describe how to measure, develop and improve new business processes for health systems.

B. Assessment

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/one/assessment.html](http://www.asu.edu/one/assessment.html))

The assessment plan will determine student achievement of educational objectives based on outcomes using the following tools: Quizzes, Discussion Boards, Papers, Collaborative Learning Projects, Exams, In class discussions, and Student narratives depending on the class. The program will be assessed by collecting information from a variety of sources including: Student and faculty course assessments, graduating student survey, student interviews, alumni surveys, employer survey, and industry advisory board input and feedback. Faculty committees evaluate student performance upon completion of project spine courses and a combination of student interviews, student reflection and student portfolio. Faculty committees on a yearly basis will assess projects. The culminating senior project is industry-driven and project teams have industry and faculty mentors. Faculty committees utilize mentor input in conjunction with project outcomes to assess student strengths and weaknesses relative to program goals and objectives.
3. Academic Curriculum and Requirements

A. Major Map.
   Attach a copy of the “proposed” major map for this degree program and each concentration(s) to be offered. Instructions on how to create a “proposed major map” in BAMM can be found in the Build a Major Map Training Guide.

B. Summary of credit hours required for this program
   Total credit hours must be 120 and include first year composition, general studies, core/required courses, program specific electives, and any additional requirements (e.g., concentration credits).

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year Composition</td>
<td>6</td>
</tr>
<tr>
<td>ASU 101 (or Equivalent) CTI 101 Success in Technology &amp; Innovation</td>
<td>1</td>
</tr>
<tr>
<td>General Studies (6 hrs satisfied concurrently with degree core)</td>
<td>32</td>
</tr>
<tr>
<td>Core/required courses</td>
<td>55</td>
</tr>
<tr>
<td>Program specific electives – Primary Focus Area</td>
<td>15</td>
</tr>
<tr>
<td>Additional requirements – Capstone Courses</td>
<td>6</td>
</tr>
<tr>
<td>Other; please explain; 5 hrs elective</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
</tr>
</tbody>
</table>

C. Core/Required Courses.
   i. Total required and/or core course credit hours: 55
   ii. List the name, prefix, and credit hours for each required/core course for this program
       CST 100 Object Oriented Software Development (3)
       CST 200 Core Data Structures with Object Oriented Programming (3)
       HSC 210 Cultural Aspects of Health (C) (3)
       HSC 300 Complementary Healthcare (3)
       HSC 320 Applied Medical/Healthcare Ethics (HU) (3)
       HSC 330 Healthcare Systems in the U.S (3)
       HSC 340 Changing Health Behaviors (3)
       HSC 420 Evaluation of Health Sciences Research (3)
       IFT 100 Multimedia, the Internet and the Web (3)
       IFT 200 Information Modeling, Storage and Retrieval (3)
       IFT 201 Computer and Network Systems: Organization & Administration (3)
       IFT 202 Foundations of Information and Computer System Security (3)
       TEM 191 First-Year Seminar (1)
       TMC 110 Understanding the Enterprise (3)
       TMC 320 Funding the Enterprise (3)
       TMC 330 Leading the Enterprise (3)
       TMC 410 Enterprise Operations (3)
       TMC 430 Enterprise Strategy and Innovation (3)
       TMC 470 Enterprise Planning & Implementation (3)
D. Program Specific Electives.
   i. Total required program elective credit hours: 15

   ii. List the name, prefix, and credit hours for any program specific electives for this program:

Students Select 15 hours under one of the focus areas

**Information Technology Management (select 15 credits)**
- CST 359 Internet Networking Protocol (3)
- CST 383 Shell and Script Programming with UNIX (3)
- CST 481 Information System Security (3)
- CST 482 Network Forensics (3)
- CST 489 Network Administration with TCP/IP (3)
- IFT 301 Introduction to Interactive Media (3)
- GIT 414 Web Site Design and Internet/Web Technologies (3)
- GIT 417 Advanced Internet Programming (3)
- GIT 418 Multimedia Authoring, Scripting and Production (3)
- GIT 435 Web Management and E-Commerce (3)

**Technology and Entrepreneurship Management (select 15 credits)**
- OMT 402 Legal Issues for Technologists (3)
- OMT 430 Ethical Issues in Technology (3)
- OMT 440 Introduction to International Business (3)
- OMT 452 Industrial Human Resource Management (3)
- OMT 452 Industrial Human Resource Management (3)
- OMT 480 Organizational Effectiveness (3)
- TEM 311 Opportunity Analysis (3)
- TEM 330 System Innovation (3)
- TEM 400 Technology Entrepreneurship (3)
- TEM 450 Design for the Developing World (3)
- TMC 310 Promotion of the Enterprise (3)
- TMC 331 Quality Assurance (3)

E. Additional Program Requirements (if any):
   List and describe any capstone experiences, milestone, and/or additional requirements.

   **IFT 401 Information Technology Capstone Project I (3)**
   **IFT 402 Information Technology Capstone Project II (3)**

   A two-semester comprehensive project experience based on cumulative knowledge and skills gained in earlier coursework. Students work in work together on teams (in some cases interdisciplinary teams) to develop solutions to an industry-sponsored project.

F. Concentrations
   i. Are any concentrations to be established under this degree program? No, concentrations will not be established.
      If yes, are concentrations required? N/A

   ii. List courses & additional requirements for the proposed concentration(s): N/A

<table>
<thead>
<tr>
<th>Concentration Name</th>
<th>Total credit hours</th>
<th>Core/Required Courses for Concentration (Prefix, # &amp; Title)</th>
<th>Total Core credit hours</th>
<th>Program Specific Electives (include course name and prefix)</th>
<th>Total Elective credit hours</th>
<th>Additional Requirements (i.e. milestones, capstones)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

4. New Course Development
A. Will a new course prefix (es) be required for this degree program? No
   If yes, list prefix name(s) (i.e. ENG-English) N/A

Note: A request for a "New/Change to Prefix Request Form" must be completed for each new prefix required and submitted with this proposal: http://provost.asu.edu/files/shared/curriculum/Prefix_Request.doc.

B. New Courses Required for Proposed Degree Program.
   List all new courses required for this program, including course prefix, number and course description.

   TEM 311 Opportunity Analysis (3)
   Opportunity Analysis entails the research and implementation of strategy to determine consumer expectations utilizing the skills especially important in today's competitive and turbulent market because the key to making sound business decisions involves the careful analysis of the situation, intelligent use of research, and successful practice. Prerequisite: TEM 100 or TMC 110 or TEM 200.

   TEM 330 Systems Innovation (3)
   Systems thinking course that investigates how innovators can incorporate the knowledge of complex systems into the processes of technology development, product/service innovation and venture development. Prerequisite(s): ENG 102, 105 or 108 or equivalent

   TEM 400 Technology Entrepreneurship, (3)
   Introduces opportunities and challenges that accompany starting and operating an entrepreneurial venture by exploring the fundamentals and principles of entrepreneurship suitable for undergraduate business and technology students. Provides real-world, hands-on learning on what it's like to successfully transfer knowledge into products and processes that benefit society. Engages students with industry, talking to customers, partners and competitors, as the team encounters the chaos and uncertainty of transferring knowledge into products and processes that benefit society. Lecture. Prerequisite(s): ENG 102 (or 105 or 108) with C or better

   TEM 450 Design for the Developing World (3)
   Learn the product design process; improve the lives of poor residents in communities at the Base of the Economic Pyramid who earn less than $2/day. Help improve health, energy and clean water issues among others by joining with Global Resolve, an ASU program in the College of Technology & Innovation whose goal is to help reduce poverty through technological innovation and entrepreneurship. Prerequisite(s): Junior, senior or graduate standing.

   IFT 401 Information Technology Capstone Project I (3)
   First half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier coursework. Integrated lecture/lab. Prerequisites: senior standing; BS Information Technology major.

   IFT 401 Information Technology Capstone Project II (3)
   Second half of a comprehensive project experience based on cumulative knowledge and skills gained in earlier coursework. Integrated lecture/lab. Prerequisite: IFT 401

Note: New course requests must be submitted electronically via Curriculum ChangeMaker and undergo all internal university review and approval steps including those at the unit, college, and university levels.

5. Program Need
   Explain why the university needs to offer this program (include target audience and market).

   The BS in Health Systems Management will increase ASU's ability to meet national needs for professionals that possess the skills to manage health systems. These needs are increasing due to increased demands for health care on the horizon with changes in health laws. No other ASU degree program combines health, technology, entrepreneurship, business and management skills, which are highly sought after in the marketplace. Students will select this degree program if they have a desire to combine technical and management skills and apply it to the health system's environment. The degree program brings together technology, entrepreneurship and health and provides in-depth educational options in information technology and technology management. This flexible combination will be attractive to students. The program also has a unique project-driven, professional, and interdisciplinary approach. The degree will produce students with a skill set in technology
management but will relate those skills to health system industries, which is highly desirable. The program will be a strong feeder program for students that want to go on to graduate school in the areas such as hospital administration and health technology-oriented degree programs.

6. 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 BS in Health Systems Management utilizes specialized courses offered by other degree programs within the College of Technology and Innovation. Students will be able to select a focus area in Information Technology Management or Technology and Entrepreneurship Management, which are supported by the course inventory in the College. The School of Nutrition and Health Promotion in the College of Health Solutions will provide required courses related to health. These classes are available as i-courses, which will make it possible for students to take these classes without having to travel to the downtown campus. Attached is a letter of support from the School of Nutrition and Health Promotion. This degree program is unique in that it provides the necessary skills in health systems, management, technology, and entrepreneurship.

7. Projected Enrollment

How many new students do you anticipate enrolling in this program each year for the next five years?

<table>
<thead>
<tr>
<th>5-YEAR PROJECTED ANNUAL ENROLLMENT</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Year</td>
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<td>2&lt;sup&gt;nd&lt;/sup&gt; Year</td>
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<td>3&lt;sup&gt;rd&lt;/sup&gt; Year</td>
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<td>4&lt;sup&gt;th&lt;/sup&gt; Year</td>
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<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; Year</td>
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<tr>
<td>(Yr 1 continuing + new entering)</td>
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<tr>
<td>(Yr 1 &amp; 2 continuing + new entering)</td>
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<tr>
<td>(Yrs 1, 2, 3 continuing + new entering)</td>
</tr>
<tr>
<td>(Yrs 1, 2, 3, 4 continuing + new entering)</td>
</tr>
<tr>
<td>Number of Students Majoring (Headcount)</td>
</tr>
</tbody>
</table>

8. 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

9. Faculty & Staff

A. Current faculty

List the name, rank, highest degree, area of specialization/expertise and estimate of the level of involvement of all current faculties who will teach in the program.

Faculty for the health-related (HSC) courses: All are Masters or Doctoral prepared in their field of professional expertise (nutrition, public health, chiropractic medicine, health promotion, gerontology, etc) and many have additional professional credentials (RD, CHES, DC, RN).

- Dr. Christi Courses, RN, WHNP, PhD
- Dr. Karen Sweazea, PhD
- Dr. Teresa Hart, PhD
- Ms. Christina Scribner, MS, RD, CSSD

Faculty for the Information Technology Focus:

- Amiya Bhattacharya, Lecturer, Ph.D. Network Security, Wireless Sensor Networks
PROPOSAL TO ESTABLISH A NEW UNDERGRADUATE DEGREE

Arbi Ghazarian, Assistant Professor, Ph.D. Software Requirements Engineering
Arnaud Eghner, Lecturer, Master of Computer Business Admin, Video Game Art
Ashraf Gaffar, Assistant Professor, Ph.D. Human-Computer Interface Design
Jane Martin, Lecturer, M Ed, Web Technology, Information Design
Kevin Gary, Associate Professor, Ph.D. Software Engineering, Web Applications
Laurel Ralston, Lecturer, EdD, Online Learning, Human-Computer Interface Design
Penny Dolin, Lecturer Sr., MS, Graphic Information Technology
Srividiya Kona Bansal, Ph.D. Service Oriented Architectures, Software Engineering
Timothy Lindquist, Professor, Ph.D. Mobile Systems, Computer Science

Faculty for the Technology and Entrepreneurship Focus:
  Aram Chavez - Lecturer
  Carolyn Hirata - Instructor
  Gary Waissi - Professor
  Gerald Polesky - Instructor
  Jane Humble - Associate Professor
  Jason Bronowitz – Lecturer
  Mitzi Montoya - Vice Provost/Dean & Professor
  Russell Branaghan - Associate Professor and Chair

B. 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 members. N/A

C. 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 BS in Health Systems Management will be administered by the Department of Technological Entrepreneurship and Innovation Management at the Polytechnic Campus. The Chair, Dr. Russ Branaghan, and departmental support staff will provide administrative oversight. Advising will be provided by the College of Technology and Innovation using the same model currently in use for all other programs of the college. Admission, registration, course scheduling, and graduation (audit) support will be provided as is currently provided for the other programs in the Department of Technological Entrepreneurship and Innovation Management, which is a combination of support at the departmental, college, and university levels.

10. Resources (necessary to launch and sustain the program)

   A. Required resources:
      Describe any new resources required for this program’s success, such as new support staff, new facilities, new library resources, new technology resources, etc.

      As the program grows, an additional advisor will be required to support this new degree program. Otherwise, existing resources to initiate the program will come from the College of Technology and Innovation.

   B. Resource acquisition:
      Explain how the resources to support this program will be obtained. Expenditures for new resources will come from student enrollment and differential tuition, which is being sought by the College.
APPENDIX
OPERATIONAL INFORMATION FOR UNDERGRADUATE PROGRAMS
(This information is used to populate the Degree Search/catalog website.)

1. Program Name (Major): Health Systems Management

2. Program Description (150 words maximum)
The BS in health systems management provides students with a unique opportunity to develop a marketable skill set via a multidisciplinary educational approach to the development of health care leaders, technologists, and entrepreneurs. The flexible program allows students to select one of two focus areas, information technology management or technology and entrepreneurship management. The degree develops graduates whose decisions are evidence-based, a critical skill as health systems evolve. Students will receive a strong foundation in health systems, technology, and business, consumer-behavior associated with health, with an emphasis on innovation and service development. Program graduates will have the skills to transform the current health care system or individual health care organizations to become more efficient and agile by improving processes, adopting best-practices, evaluating and adopting technologies. Graduates will lead such organizations and systems to become more competitive globally.

3. Contact and Support Information
   Building Name, code and room number: (Search ASU map) TECH 101
   Program office telephone number: (i.e. 480/965-2100) 480/727-1874
   Program Email Address: technology@asu.edu
   Program Website Address: https://technology.asu.edu/index.php?q=teim

4. Delivery/Campus Information Delivery: On-Campus only (ground courses and/or iCourses)
   Note: Once students elect a campus or On-line option, students will not be able to move back and forth between the on-campus and the ASU Online options. Approval from the Office of the Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online.

5. Campus/Locations: indicate all locations where this program will be offered.
   □ Downtown Phoenix   ✔ Polytechnic   □ Tempe   □ West   Other:

6. Additional Program Description Information
   A. Additional program fee required for this program? NO
   B. Does this program have a second language requirement? NO

7. Career Opportunities & Concentrations
   Provide a brief description of career opportunities available for this degree program. If program will have concentrations, provide a brief description for each concentration. (150 words maximum)

   Graduates of the program are well-qualified for careers in the management of health systems. This degree couples technical skills with the business skills needed to manage complex health systems. The focus area of information technology management allows the graduate to pursue a career as technical support administration for the various health systems, which will address information assurance, securing computer applications, and security of communication and information. These skills are combined with knowledge of computer systems and networking design, configuration, and administration. The technology and entrepreneurship management focus area provides students with the opportunity to generate and evaluate products and services for the health system enterprise. Students will be able to pursue careers in marketing and consumer behavior as it relates to health systems. Careers in health systems operations and social entrepreneurship will be available to these students.

8. Additional Admission Requirements
   If applicable list any admission requirements (freshman and/or transfer) that are higher than and/or in addition to the
9. Keywords
List all keywords used to search for this program. Keywords should be specific to the proposed program.

Heath Systems Management, Information Technology, Technology, Entrepreneurship, Innovation, Business Process, Network Administration, Health

10. Advising Committee Code
List the existing advising committee code to be associated with this degree. UGTIEN
Note: If a new advising committee needs to be created, please complete the following form:
Proposal to create an undergraduate advising committee

11. First Required Math Course
List the first math course required in the major map. MAT 142

12. Western Undergraduate Exchange (WUE) Eligible:
Has a request been submitted to the Provost by the Dean to consider this degree program as eligible for WUE? NO
Note: No action will be taken during the implementation process with regards to WUE until approval is received from the Provost.

13. Area(s) of Interest
A. Select one (1) primary Area of Interest from the list below that applies to this program.

- Architecture, Construction & Design
- Artistic Expression & Performance
- Biological Sciences, Health & Wellness
- Business, Management & Economics
- Communication & Media
- Computing & Mathematics
- Education & Teaching
- Engineering & Technology
- Environmental Issues & Physical Science
- Interdisciplinary Studies
- Languages & Cultures
- Law & Justice
- Social Science, Policies & Issues

B. Select any additional Areas of Interest that apply to this program from the list below.

- Architecture, Construction & Design
- Artistic Expression & Performance
- Biological Sciences, Health & Wellness
- Business, Management & Economics
- Communication & Media
- Computing & Mathematics
- Education & Teaching
- Engineering & Technology
- Environmental Issues & Physical Science
- Interdisciplinary Studies
- Languages & Cultures
- Law & Justice
- Social Science, Policies & Issues

The following fields are to be completed by the Office of the Executive Vice President and Provost of the University.

CIP Code: 

Plan Code: 
### 2013 - 2014 Major Map

**Health Systems Management, BS (Proposed)**

**SVOZCLL**

#### Term 1

- **0 - 16 Credit Hours**
- Critical course signified by **CST 100**: Object-Oriented Software Development 3
- **MAT 119**: Finite Mathematics (MA) 3
- **TMC 110**: Understanding the Enterprise 3
- **CTI 101**: Success in Technology & Innovation 1
- **ENG 101** or **ENG 102**: First-Year Composition OR
- **ENG 105**: Advanced First-Year Composition OR
- **ENG 107** or **ENG 108**: English for Foreign Students 3
- **PSY 101**: Introduction to Psychology (SB) 3

Term hours subtotal: 16

#### Term 2

- **17 - 31 Credit Hours**
- Critical course signified by
- **CST 200**: Core Data Structures with Object Oriented Programming 3
- **IFT 100**: Multimedia, the Internet and the Web 3
- **ENG 101** or **ENG 102**: First-Year Composition OR
- **ENG 109**: Advanced First-Year Composition OR
- **ENG 107** or **ENG 108**: English for Foreign Students
- Lower Division Elective 2
- **PHI 101**: Introduction to Philosophy (HU) 3
- **TEM 191**: First-Year Seminar 1

Complete First-Year Composition requirement.

Term hours subtotal: 15

#### Term 3

- **32 - 47 Credit Hours**
- Critical course signified by
- **HSC 210**: Cultural Aspects of Health (C) 3
- **IFT 200**: Information Modeling, Storage and Retrieval 3
- **IFT 201**: Computer and Network Systems: Organization and Administration 3
- Lower Division Elective 3
- Natural Science - Quantitative (SQ) 4

Complete Mathematics (MA) requirement.

Term hours subtotal: 16

#### Term 4

- **48 - 60 Credit Hours**
- Critical course signified by
- Complete HSC 210 course(s).
- **IFT 202**: Foundations of Information and Computer System Security 3
- Literacy and Critical Inquiry (L) 3
- Natural Science - General (SG) OR Natural Science - Quantitative (SQ) 4
- **PSY 230**: Introduction to Statistics (CS) 3

Term hours subtotal: 13

#### Term 5

- **61 - 75 Credit Hours**
- Necessary course signified by
- **HSC 320**: Applied Medical/Healthcare Ethics (HU) 3

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Minimum Notes Grade

- An SAT, ACT, Accuplacer, or TOEFL score determines placement into first-year composition courses
- ASU Math Placement Exam score determines placement in Mathematics course
- CTI 101 First Year Seminar required of all freshman students

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[https://webapp4.asu.edu/programs/t5/roadmaps/ASU00/SVOZCLL/null/ALL/2013](https://webapp4.asu.edu/programs/t5/roadmaps/ASU00/SVOZCLL/null/ALL/2013)
| Term 6 | 76 - 96 Credit Hours Necessary course signified by
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>HSC 330: Healthcare Systems in the U.S.</td>
<td>3</td>
</tr>
<tr>
<td>HSC 340: Changing Health Behaviors</td>
<td>3</td>
</tr>
<tr>
<td>Upper Division Literacy and Critical Inquiry (L)</td>
<td>3</td>
</tr>
<tr>
<td>TMC 320: Funding the Enterprise</td>
<td>3</td>
</tr>
<tr>
<td>Upper Division Track Focus Area Course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Term hours subtotal:** 15

| Term 7 | 91 - 105 Credit Hours Necessary course signified by
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>IFT 401: Information Technology Capstone Project I</td>
<td>3</td>
</tr>
<tr>
<td>Social and Behavioral Sciences (SB) AND Global Awareness (G)</td>
<td>3</td>
</tr>
<tr>
<td>TMC 410: Enterprise Operations</td>
<td>3</td>
</tr>
<tr>
<td>TMC 430: Enterprise Strategy and Innovation</td>
<td>3</td>
</tr>
<tr>
<td>Upper Division Track Focus Area Course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Term hours subtotal:** 15

| Term 8 | 106 - 120 Credit Hours Necessary course signified by
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>IFT 402: Information Technology Capstone Project II</td>
<td>3</td>
</tr>
<tr>
<td>HSC 420: Evaluation of Health Sciences Research</td>
<td>3</td>
</tr>
<tr>
<td>TMC 470: Entrepreneurship Planning &amp; Implementation</td>
<td>3</td>
</tr>
</tbody>
</table>
| Complete 2 courses:
  Upper Division Track Focus Area Course | 6 |

**Term hours subtotal:** 15

Students select one primary focus area (15 credits): Information Technology or Technology and Entrepreneurship Management

**Information Technology Management**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFT 301</td>
<td>Introduction to Interactive Media</td>
</tr>
<tr>
<td>GIT 414</td>
<td>Web Site Design and Internet/Intranet Technologies</td>
</tr>
<tr>
<td>GIT 417</td>
<td>Advanced Internet Programming</td>
</tr>
<tr>
<td>GIT 418</td>
<td>Multimedia Authoring, Scripting and Production</td>
</tr>
<tr>
<td>GIT 435</td>
<td>Web Management and E-Commerce</td>
</tr>
<tr>
<td>CST 399</td>
<td>Internet Networking Protocol</td>
</tr>
<tr>
<td>CST 381</td>
<td>Shell and Script Programming with UNIX</td>
</tr>
<tr>
<td>CST 481</td>
<td>Information System Security</td>
</tr>
<tr>
<td>CST 482</td>
<td>Network Forensics</td>
</tr>
<tr>
<td>CST 489</td>
<td>Network Administration with TCP/IP</td>
</tr>
</tbody>
</table>

**Technology and Entrepreneurship Management**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEN 330</td>
<td>System Innovation</td>
</tr>
<tr>
<td>TEM 400</td>
<td>Technology Entrepreneurship</td>
</tr>
<tr>
<td>TEM 410</td>
<td>Design for the Developing World</td>
</tr>
<tr>
<td>TMC 310</td>
<td>Promotions of the Enterprise</td>
</tr>
<tr>
<td>TMC 311</td>
<td>Opportunity Analysis</td>
</tr>
<tr>
<td>TMC 331</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>CMT 452</td>
<td>Industrial Human Resource Management</td>
</tr>
<tr>
<td>CMT 460</td>
<td>Organizational Effectiveness</td>
</tr>
<tr>
<td>CMT 462</td>
<td>Legal Issues for Technologists</td>
</tr>
<tr>
<td>CMT 480</td>
<td>Ethical Issues in Technology</td>
</tr>
<tr>
<td>CMT 465</td>
<td>Introduction to International Business (G)</td>
</tr>
<tr>
<td>CMT 452</td>
<td>Industrial Human Resource Management</td>
</tr>
</tbody>
</table>

https://webapp4.asu.edu/programs/s5/roadmaps/ASU00/SVOZCLL/null/ALL/2013
Total Hours: 120
Upper Division Hours: 45 minimum
Major GPA: 2.00 minimum
Cumulative GPA: minimum
Total hrs at ASU: 30 minimum
Hrs Resident Credit for Academic Recognition: minimum
Total Community College Hrs: maximum

General University Requirements Legend

General Studies Core Requirements:
- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)
- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Fine Arts and Design (HU)
- Social and Behavioral Sciences (SQ)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:
- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed on the major map are current for the 2013-2014 academic year.
approved

Mitzi Montoya
Sent from my DROID

Scott Danielson <Scott.Danielson@asu.edu> wrote:

Dean Montoya,

I am asking for your approval on the attached proposal for a BS in Health Systems Management to be offered in the College of Technology and Innovation at the Polytechnic campus. Your approval is needed before I can send the proposal forward to the Provost’s office.

Your approval indicates that the proposal has been approved by the Department and College levels of review, and the College has the resources to offer this degree program and that you recommend implementation of the proposed degree program.

Thank you.

Scott Danielson, Ph.D., P.E.
Associate Dean for Academic Programs
College of Technology and Innovation
Arizona State University
480-727-1185
Date: November 8, 2012

To: Dr. Craig Thatcher  
College of Technology and Innovation

From: Dr. Russell Bronaghan  
Chair, Department of Technological Entrepreneurship and Innovation Management  
College of Technology and Innovation

Re: BS in Health Systems Management

Please accept this memo of support for the establishment of the proposed BS in Health Systems Management. The attached proposal has been developed by the faculty of the College of Technology and Innovation, has been reviewed and approved through the established process within the college and has full support of the faculty of the College of Technology and Innovation.

The Department of Technological Entrepreneurship and Innovation Management has sufficient resources to support the new BS in Health Systems Management without impacting the offering of core courses within the unit.
MEMORANDUM

To: Craig Thatcher, DVM, DVM, PhD, Diplomate ACVN
   Associate Dean, College of Technology and Innovation

From: Linda Vaughan, PhD, RD
   Director, School of Nutrition and Health Promotion

Re: Support for proposed BS in Health Systems Management

I am pleased to provide my strong support for the proposed BS degree in Health Systems Management, to be offered by the Technological Entrepreneurship and Innovation Management faculty in the College of Technology and Innovation. This degree will prepare students for careers as health system leaders, technologists, and entrepreneurs, preparing them to enter into the health industry in an administrative capacity. Unlike students in the School of Nutrition and Health Promotion’s BS in Health Sciences degree, these students will receive a strong foundation in health systems, technology, and business, with an emphasis on innovation and service development. None of the concentrations in the BS in Health Sciences intersect with the technology/business orientation of the proposed degree.

The School of Nutrition and Health Promotion is well positioned to provide the following required courses in support of the proposed major:

- HSC 210 Cultural Aspects of Health
- HSC 300 Complementary Healthcare
- HSC 320 Applied Medical/Healthcare Ethics
- HSC 330 Healthcare Systems in the U.S.
- HSC 340 Changing Health Behavior
- HSC 420 Evaluation of Health Sciences Research.

We have adequate faculty to serve the anticipated number of students in the proposed major, delivering the courses through on-the-ground, hybrid, and iCourse formats.

I am happy to respond to any questions that may arise.