



ARIZONA STATE UNIVERSITY  
GENERAL STUDIES COURSE PROPOSAL COVER FORM

**Course information:**

Copy and paste current course information from Class Search/Course Catalog.

Academic Unit College of Health Solutions Department Biomedical Informatics

Subject BMI Number 483 Title Capstone II Units: 3

Is this a cross-listed course? No  
If yes, please identify course(s) \_\_\_\_\_

Is this a shared course? (choose one) If so, list all academic units offering this course \_\_\_\_\_  
Course description: \_\_\_\_\_

**Requested designation:** Literacy and Critical Inquiry-L  
*Note- a separate proposal is required for each designation requested*

**Eligibility:**

Permanent numbered courses must have completed the university's review and approval process.  
For the rules governing approval of omnibus courses, contact the General Studies Program Office at (480) 965-0739.

**Area(s) proposed course will serve:**

A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

**Checklists for general studies designations:**

- Complete and attach the appropriate checklist
- Literacy and Critical Inquiry core courses (L)
  - Mathematics core courses (MA)
  - Computer/statistics/quantitative applications core courses (CS)
  - Humanities, Fine Arts and Design core courses (HU)
  - Social and Behavioral Sciences core courses (SB)
  - Natural Sciences core courses (SO/SG)
  - Global Awareness courses (G)
  - Historical Awareness courses (H)
  - Cultural Diversity in the United States courses (C)

**A complete proposal should include:**

- Signed General Studies Program Course Proposal Cover Form
- Criteria Checklist for the area
- Course Syllabus
- Table of Contents from the textbook, and/or lists of course materials

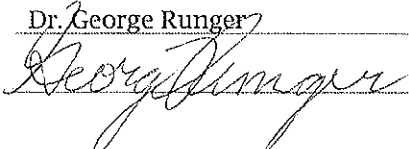
**Contact information:**

Name Laura Kaufman Phone 4-0234

Mail code 6520 E-mail: Laura.Kaufman@asu.edu

**Department Chair/Director approval: (Required)**

Chair/Director name (Typed): Dr. George Runger Date: 9/16/13

Chair/Director (Signature): 

**Arizona State University Criteria Checklist for**  
**LITERACY AND CRITICAL INQUIRY - [L]**

**Rationale and Objectives**

**Literacy** is here defined broadly as communicative competence in written and oral discourse. **Critical inquiry** involves the gathering, interpretation, and evaluation of evidence. Any field of university study may require unique critical skills which have little to do with language in the usual sense (words), but the analysis of spoken and written evidence pervades university study and everyday life. Thus, the General Studies requirements assume that all undergraduates should develop the ability to reason critically and communicate using the medium of language.

The requirement in Literacy and Critical Inquiry presumes, first, that training in literacy and critical inquiry must be sustained beyond traditional First Year English in order to create a habitual skill in every student; and, second, that the skills become more expert, as well as more secure, as the student learns challenging subject matter. Thus, the Literacy and Critical Inquiry requirement stipulates two courses beyond First Year English.

Most lower-level [L] courses are devoted primarily to the further development of critical skills in reading, writing, listening, speaking, or analysis of discourse. Upper-division [L] courses generally are courses in a particular discipline into which writing and critical thinking have been fully integrated as means of learning the content and, in most cases, demonstrating that it has been learned.

Students must complete six credit hours from courses designated as [L], at least three credit hours of which must be chosen from approved upper-division courses, preferably in their major. Students must have completed ENG 101, 107, or 105 to take an [L] course.

Notes:

1. ENG 101, 107 or ENG 105 must be prerequisites
2. Honors theses, XXX 493 meet [L] requirements
3. The list of criteria that must be satisfied for designation as a Literacy and Critical Inquiry [L] course is presented on the following page. This list will help you determine whether the current version of your course meets all of these requirements. If you decide to apply, please attach a current syllabus, or handouts, or other documentation that will provide sufficient information for the General Studies Council to make an informed decision regarding the status of your proposal.

Proposer: Please complete the following section and attach appropriate documentation.

<b>ASU - [L] CRITERIA</b>			
TO QUALIFY FOR [L] DESIGNATION, THE COURSE DESIGN MUST PLACE A MAJOR EMPHASIS ON COMPLETING CRITICAL DISCOURSE--AS EVIDENCED BY THE FOLLOWING CRITERIA:			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>CRITERION 1:</b> At least 50 percent of the grade in the course should depend upon writing, including prepared essays, speeches, or in-class essay examinations. <i>Group projects are acceptable only if each student gathers, interprets, and evaluates evidence, and prepares a summary report</i>	BMI 483 Syllabus
1. Please describe the assignments that are considered in the computation of course grades--and indicate the proportion of the final grade that is determined by each assignment.			
2. <b>Also:</b> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;">                         Please <b>circle, underline, or otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading process--and label this information "<b>C-1</b>".                     </div> C-1			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>CRITERION 2:</b> The composition tasks involve the gathering, interpretation, and evaluation of evidence	BMI 483 Syllabus
1. Please describe the way(s) in which this criterion is addressed in the course design			
2. <b>Also:</b> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;">                         Please <b>circle, underline, or otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading process--and label this information "<b>C-2</b>".                     </div> C-2			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>CRITERION 3:</b> The syllabus should include a minimum of two substantial writing or speaking tasks, other than or in addition to in-class essay exams	BMI 483 Syllabus
1. Please provide relatively detailed descriptions of two or more substantial writing or speaking tasks that are included in the course requirements			
2. <b>Also:</b> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;">                         Please <b>circle, underline, or otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading process--and label this information "<b>C-3</b>".                     </div> C-3			

<b>ASU - [L] CRITERIA</b>			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>CRITERION 4:</b> These substantial writing or speaking assignments should be arranged so that the students will get timely feedback from the instructor on each assignment in time to help them do better on subsequent assignments. <i>Intervention at earlier stages in the writing process is especially welcomed</i>	BMI 483 Syllabus
1. Please describe the sequence of course assignments--and the nature of the feedback the current (or most recent) course instructor provides to help students do better on subsequent assignments			
2. <b>Also:</b> Please <b>circle, underline, or otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading process--and label this information " <b>C-4</b> ".			
<b>C-4</b>			

Course Prefix	Number	Title	Designation
BMI	483	Biomedical Informatics Capstone II	

Explain in detail which student activities correspond to the specific designation criteria. Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
1	<p>Each student will have 3 individual written assignments identifying and addressing key information for the Biomedical Informatics problem they are trying to solve, the available solutions, and the strengths and weaknesses of the potential solutions.</p> <p>Each student will be responsible for weekly/bi-weekly group reports and presentations, oral and written.</p> <p>Each student develop and produce a written project report by the end of the semester encompassing the entire semester of research.</p>	<p>See the highlighted section of the syllabus identifying points for the written assignments, group reports and presentations (oral and written) and written project report.</p> <p>These highlighted assessments comprise 60% of the total course grade. Additional writing is required during the design documentation.</p>
2	<p>Each student will gather information relative to the problem, interpret data and prior research, and evaluate possible solutions to the Biomedical Informatics problem selected.</p> <p>Each student will gather, interpret and evaluate peer research and presentations, evaluating evidence and providing feedback and evaluate possible solutions to a Biomedical Informatics problem.</p>	<p>See the highlighted section of the syllabus. Outlined are project design documentation, peer evaluations, and creating a project prototype.</p>
3	<p>Each student will complete 3 individual written assignments, in addition to a final written project report.</p> <p>Each student will also develop and present weekly/bi-weekly group reports and presentations, oral and written</p>	<p>See the highlighted portions of the syllabus.</p>

4	The individual written assignments, written project report and all other assignments throughout the semester will be graded immediately after being submitted and timely feedback will be provided.	See the highlighted portions of the syllabus.
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## BMI 483 Biomedical Informatics Capstone II

### Course Syllabus

**Instructor:** Dr. George Runger, 480-884-0220

**Office Hours:** TBD

**Class Meeting:** TBD

**Teaching Assistant:** TBD

**TA Office Hours:** TBD

**Textbook:** *Biomedical Informatics. Computer Applications in Health Care and Biomedicine.* Edward H. Shortliffe, Editor and James J. Cimino, Editor.

**Optional References:** Additional Course readings to be determined

**Prerequisites:** Must be a senior BMI student and have completed ENG 101 with a C or Better, and BMI 312 with a grade of B- or better and BMI 482 with a B- or better.

**Course Description:** This class, BMI 483, is the second of a two semester senior capstone project course. In BMI 483, students will execute the capstone project planned in BMI 482.

**Learning Objectives:** Upon completing BMI 483, students will understand the requirements for working collaboratively in a research context to gather requirements and clarify a problem in Biomedical Informatics, designing alternative solutions, selecting a best alternative, writing project communications including three 8-10 page written assignments and a 10-12 page final report, giving oral presentations, and possibly handling project focus changes.

### Course learning outcomes:

***Students who complete this course will be able to:***

1. Plan and manage activities for a substantial biomedical informatics applied project
2. Understand the challenges of leadership and be able to lead a technical activity.
3. Implement and validate a substantial applied project using current techniques, skills and tools.
4. Work with a project sponsor to define completion criteria and quality requirements for an applied project.
5. Communicate technical concepts and material effectively both orally and in writing to a range of audiences.
6. Recognize the need and demonstrate skills for continuing to learn throughout their careers.
7. Objectively evaluate peer work and contribution.

**Course assessment plan:**

Individual written assignments of 8-10 pages each (3) – 15%  
These assignments will be assessed for prompt feedback (immediate oral feedback and 2-day turnaround in writing) in order for each student to make modifications needed relative to the development of the final project (C-4)

Weekly/bi-weekly group reports and presentations – oral and written – 15%  
Project requirements and design documentation – 20%  
Peer evaluations – 10 %  
Project prototype – 10%

Written project report, 10-12 pages – 30%  
These assignments will be assessed for prompt feedback (immediate oral feedback and 2-day turnaround in writing) in order for each student to make modifications needed relative to the development of the final project (C-4)

Grades will be assigned based on the scale 90%+ = A, 80%-89% = B, etc. Plus/minus grades will be assigned.

**Major topics and time covered:**

1. Project management (2 weeks)
2. Leadership (1 week)
3. Testing and quality (2 weeks)
4. Software development/implementation (5 weeks)
5. Business plans and development (2 weeks)
6. Professional, ethical, legal, security and social responsibilities (2 weeks)
7. Continuing professional development (1 week)

**Document History:**

Course coordinator	Creation date	TAC approval date	UPC/GPC approval date



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