**Georgia Institute of Technology**

**Wallace H. Coulter Department of Biomedical Engineering**

*New Course Syllabus*

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| Course Title: **Professional Communications for BioID** | Instructor: Julie Babensee, PhD |
| Course Number: **BMED 6506** | Credit Hours: 3 |
| Co-requisites: Graduate student enrollment in BioID Program |  |

## Course Description: Effective communication is an essence of component of medical device engineering, design and business. Specifics will be taught and practiced in composition skills, project/grant proposal writing, technical/project report writing, oral presentations tailored for purpose and audience, "slide" design and projected presentations. Principles, methods and techniques taught in this course will be coordinated with sequence of required deliverables in BioID Master’s program courses. Specific deliverables for this course will be assignments in preparing abstracts; business letters and communications, progress/project reports, and business plan components.

**Catalogue Description:**

Techniques and practice of effective oral presentations, project/grant proposal writing, technical and project report writing to support medical device engineering, design and business.

**Course Objectives:**

* Determine and create most appropriate and effective communication strategy and output for professional reports and presentations
* Demonstrate proficiency in communicating complex technical and business content in professional reports and presentations

**Course Format:**

There will be two (2) class sessions of 1.5 hours each per week for the 16-week semester. Instructional mode of the course includes: Weekly lectures (1.5 hrs/week) and in-class exercises and discussions (1.5 hrs/week). Readings will be assigned in the designated textbooks, supplemented with reading from reference material and contemporary case information on medical device issues in the news. Grading will be from a combination of a mid-term and final exam with will include presentation of a team-project conducted during the semester.

**Grading:**

* Class assignments (20%)
* Exams (30%)
* Class presentations (30%)
* Class participation (20%)

**Class Materials:**

TextBook:

* Bunnett, Rebecca E, *Technical Communications*, Sixth Edition Thompson Wadsworth, 2005. Print.

Recommended Reference Materials:

* Sibbet, David. *Visual Meetings: How Graphics, Sticky Notes, and Idea Mapping Can Transform Group Productivity*. Hoboken: John Wiley & Sons, Inc., 2010. Print.
* Walters, D. Eric, and Gale C. Walters. *Scientists Must Speak*. Boca Raton: CRC PressTaylor & Francis Group, 2011. Print.

**Course Topics Lectures and Presentat*ions***

1. **Introduction to Professional Communications**
   1. Workplace communication, addressing audiences, collaboration
   2. Project planning, organization and gathering support
   3. Organizing information
   4. Communicating progress
   5. Sales pitch
2. **Technical Writing Skills**
   1. Preparing correspondence
   2. Preparing proposals
   3. Preparing techanical and progress reports
   4. Preparing technical materials
   5. Creating technical descriptions
   6. Creating process explanations
   7. Electronic dissemination of technical material
   8. Planning, drafting, revising and editing
3. **Oral Presentations**
   1. Presentation skills in a corporate culture
   2. Presentation structures, organization and design
   3. Visual aids – slide design and presentation
   4. Graphical communication of technical data
   5. Handouts
   6. Posters
4. **Visual Communication of Technical Data**
   1. Graphics
   2. Illustrations
   3. Diagrams
5. **Business Plan Composition**
   1. Executive Summary
   2. Business Description
   3. Market Analysis
   4. Strategy
   5. Operations
   6. Financial Outlook
   7. Timeline and milestones