3 MAIN ASSIGNMENT COMPONENTS

COMPONENT 1: The Proposal

COMPONENT 2: The explanation of topic area
In addition to your Proposal, you will identify to which Conference Topic Area your Proposal (and, eventually, your Conference Paper) should be submitted (for example, Civil Engineering Topics, or Industrial Engineering Topics, or Chemical Engineering Topics). You will briefly explain why this is the appropriate topic area for your Proposal/Paper. This explanation must be 75-100 words. See COMPONENT 2: IDENTIFYING THE TOPIC AREA on page 3. See, also, Proposal PowerPoint on the Conference Info. page http://www.engineering.pitt.edu/First-Year/First-Year-Conference/Conference-Information/.

COMPONENT 3: Required Sources—Sources consulted for the Proposal and sources used within the Proposal
You must use a minimum of 6 sources to prepare for/write your Proposal. These sources will facilitate your delineation of a topic and will allow you to begin clarifying key information. See COMPONENT 3: REQUIRED SOURCES—See Sources consulted and sources used within the Proposal on page 3. See, also, Proposal PowerPoint on the Conference Info. page http://www.engineering.pitt.edu/First-Year/First-Year-Conference/Conference-Information/.

If you want to write a successful proposal, you will pay careful attention to the following instruction/information/examples. If you do not give this information your full and ongoing attention, you are at risk of failing the Proposal stage of the Conference Paper process.

COMPONENT 1: The Proposal

A proposal functions as a substantial preview/summary of the paper. A strong proposal “advertises” what your paper will be about. With a strong proposal, readers will be able to clearly see what your paper will communicate and what kinds of investigation and information will facilitate that communication. In your Proposal
⇒ you must clearly state the topic/focus your Conference Paper. NOTE: In your Proposal, you must underline your topic—that sentence or those sentences that clearly state your topic/focus
⇒ you must briefly, but clearly, describe the main technology, process, and/or product and the particular application or applications that you will be writing about in your Conference Paper
⇒ you must briefly, but clearly, state and support how/why this topic is important at this time to your Conference audience (engineers, engineering faculty, engineering students, other interested professionals)
⇒ you must provide readers with a brief preview of how you will go about describing and evaluating your selected technology, process, and/or product (how will you proceed to describe, analyze, and clarify the significance of the technology/process/product?).
⇒ See slides 7-12 of the Proposal PowerPoint http://www.engineering.pitt.edu/First-Year/First-Year-Conference/Conference-Information/

COMPONENT 1: The Proposal (continued)—“Focusing In”
⇒ Clearly State the Topic of your Paper; Make Sure That Topic is Manageable and Appropriate
➢ You must narrow your initial “brainstorming” and investigation to a paper topic that is appropriate and manageable for the Freshmen Engineering Conference Paper. The more work you do in delineating and clearly articulating an appropriate topic NOW, the more successful you will be as you proceed with the next steps in the paper-writing process.
➢ A carefully written topic statement (or several strongly linked statements) will clearly tell readers what technology, process,
and/or product and what application your paper will be about and will clearly communicate to readers that you are capable of continuing to do substantial research and writing on that topic and application.

- **An example:** You might be interested in the broad topic area of chemical engineering, but “chemical engineering” is a topic area, not a paper topic or focus. You must immediately begin to narrow your focus. Perhaps you are interested in the materials aspects of ChemE, and your initial research alerts you to innovations in polymers. “Polymers,” however is still far too broad a topic area for this Conference Paper. You then begin researching recently developed polymers and particular applications for these innovative polymers. This research leads you to information about how various polymers are used in the construction of aircraft. At this point, you are getting close to delineating a manageable, appropriate topic/focus, but are not “there” yet—your topic/focus is still too broad. It would be impossible, in your 5000-word Conference Paper, to clearly describe and substantially evaluate the various types of polymers used aircraft construction. SO...

- ...you must continue to delineate and articulate a more specific topic: will you be writing about military aircraft or commercial aircraft; about piloted aircraft or “unmanned” aircraft? Perhaps you decide to write about commercial/pasenger aircraft. You’re getting closer to an appropriate topic, **BUT your topic is still too broad!** Your next area of investigation might be a particular polymer for a particular aspect of commercial aircraft construction

- Your continuing research might lead you to the use of carbon fiber reinforced polymers and the use of bismaleimide (BMI)-class composites in commercial aircraft construction, particularly in the fuselage. **NOW YOU HAVE A MANAGEABLE, APPROPRIATE TOPIC for this paper and this conference:** The “working title” of your Proposal might be “The Significance of BMI-class Polymers in Commercial Aircraft Fuselage,” and your topic sentence(s) will expand from there.

- This topic—the use of bismaleimide (BMI)-class composites in commercial aircraft construction, particularly in the fuselage—allows you the “space” in a 5000-word paper to fully discuss BMI-class polymers: to fully discuss their importance to the commercial aircraft industry; and to clarify why these polymers and this type of application are important to your 2016 Freshmen Conference audience.

**NOTE: in your proposal, you must underline your topic (the sentence or sentences that clearly state your topic/focus).**

**COMPONENT 1: The Proposal (continued)—Describing and Contextualizing**

- **Briefly, but clearly, describe and contextualize the main technology, process, and/or product and the particular application or applications that you are writing about**
  - In your proposal, you must describe the technology, process, and/or product and the application that constitute the topic of your paper. Your topic sentence or sentences note what your paper “is about.” But as you proceed through your proposal, you must go beyond “noting”; you must briefly describe the main technology, process, and/or product and the application of that technology, process, and/or product
  - The writers of the BMI-class polymer proposal exemplified above would briefly describe what a BMI class polymer is and would briefly describe why it is an important material for use in the fuselage of commercial aircraft
  - Of course, you will provide a great deal of further detail and clarification in your actual paper, but from your proposal, readers should be able to begin to “see” the technology/process/product; to “see” how/why the particular application “works”; and to see how/why the technology/process/product and application are significant
  - See slides 7-12 of the Proposal PowerPoint [http://www.engineering.pitt.edu/First-Year/First-Year-Conference/Conference-Information/](http://www.engineering.pitt.edu/First-Year/First-Year-Conference/Conference-Information/)

- **Clearly state how/why this topic is significant to your Conference audience (engineers, engineering faculty, engineering students, and other interested professionals)**
  - As the writers of this paper, it is your responsibility to clarify, for your readers, why reading about this topic is worth their time
  - Readers should not have to wonder about or “guess at” about why your topic is significant. Your proposal must begin to show/tell readers why, for example, the continuing development and use of BMI-class polymers is important to the commercial aircraft industry and to engineers, to engineering, and to other potentially relevant professionals.

- **Provide readers with a clear preview of how you will go about describing and evaluating your**
selected technology, process, and/or product

➢ Readers of your proposal need to have confidence that your paper will be well researched and well organized. You build this confidence by demonstrating that you have a sound plan for continuing your research and for organizing/presenting your information areas
   o Of course, you have not yet written the paper, so you cannot be sure about all the sources you will be consulting or about exactly how you will present and interconnect all the necessary information and analyses. But you need to demonstrate that you have a reasonable “plan.” To do so, describe the kinds of resources you plan to use and describe how you envision organizing the paper.
➢ See slide 12 of the Proposal PowerPoint http://www.engineering.pitt.edu/First-Year/First-Year-Conference/Conference-Information/

⇨ In sum: a specific statement of an appropriate/manageable topic + brief description of technology & application/example + clarification of significance + a research and organization plan = a successful Proposal. See slides 7-12 of the Proposal PowerPoint.

COMPONENT 2: Identifying/Explaining the Topic Area

⇨ You must identify the most appropriate Conference topic area for your Conference Paper, and include a 75-100-word explanation (75-100 words in addition to your 375-450 word Proposal) of why this is the logical and best Conference area for your paper.
➢ For example: if you are submitting a Proposal about a particular GPS technology and its application in the United States military, you will need to decide which of the topic areas listed below is the best one for your proposed paper, and you will need to briefly explain why your paper belongs in this topic area.
⇨ Your 75-100-word Conference Topic identification/explanation will be on the same page as your Proposal, but separate from the actual Proposal. You will be provided with specific formatting specifications
⇨ Conference Topics Areas (you will explain why your proposed paper “fits into” one of these Conference topic areas):
   - Bioengineering Topics
   - Chemical Engineering Topics
   - Civil Engineering Topics
   - Computer Engineering Topics
   - Electrical Engineering Topics
   - Energy/Environmental Engineering Topics
   - Industrial Engineering Topics
   - Mechanical Engineering Topic

COMPONENT 3: Required Sources—Sources Consulted and Sources Used Within the Proposal

Your Assg. 1 must have a Sources Consulted section, and you will most likely also have a Sources section. The Sources Consulted section will include a minimum of 6 sources. These 6 (or more) sources are the sources you have used to write your Proposal. These 6 sources must meet the specifications detailed below. If, in your Proposal (and/or your Topic Area Explanation), you quote, paraphrase, or summarize from a source, you will use the citation system you used last semester: in-text sequential bracketed numbers (always starting with [1]) and corresponding full bibliographical information in a Sources section (so, if, in your Proposal, you quote, paraphrase, or summarize from a source, you will cite that source material and your Sources section). See slides 14-16 of the Proposal PowerPoint http://www.engineering.pitt.edu/First-Year/First-Year-Conference/Conference-Information/.

⇨ 1 source must provide an “overview” of your topic.
   ➢ If you are not sure what you want to write about, this source (and others like it) will help you understand a field of inquiry and application. This source might be “history of…” or “overview of…” article or book.
   o An example: if you want to write about artificial skin, you will consult at least one source that will help you understand (and explain) the current major issues/research/technologies related to artificial skin. If you already know that you want to write about a particular type of artificial skin, you can fulfill this “overview” requirement with a source that provides a “history” or “overview” of that particular type and related products/applications. For instance, if you are writing about “electronic skin,” at least one of your sources should be an overview of current research and development in “e-skin” technology.
Focus is the feature of effective writing that answers the question “So what?” An effective piece of writing establishes a single focus and sustains that focus throughout the piece. Just as a photographer needs to focus on a particular subject to produce a clear picture, a writer needs to focus on a single topic or main idea in order to produce an effective piece of writing. But finding a focus means more than just knowing what your story is about, but understanding why you are writing it in the first place. Without a clear focus, students’ stories, reports, and essays degenerate into lists of loosely related events or facts with no central idea to hold them together, leaving the reader to ask “So what?” By establishing a clear focus before they start to write, students can craft their writing into a coherent, unified whole. Finding a focus helps students find the significance in their stories, the message that they want to convey to their audience, their reason for writing.

Establishing a clear focus also helps readers understand the point of the piece of writing. Readers don’t want to read a mishmash of unrelated ideas; they read to learn something new, to be surprised, to gain a new insight on an old idea, to view something from a new perspective or angle. Focus is also the critical feature that drives all the other features. Focus determines what choices the writer makes about everything from organizational structure to elaborative details to word choice, sentence length, and punctuation. At the same time, effective writers take advantage of the appropriate supporting features to strengthen the focus of their writing.

DO THIS!
http://www.learnnc.org/lp/editions/few/680

FOCUS: MORE THAN JUST THE MAIN IDEA

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NOT THIS!
http://www.mcsweeney.com/articles/a-generic-college-paper

A GENERIC COLLEGE PAPER

Since the beginning of time, bullxxx, flowery overgeneralization with at least one thesaurus’d vocabulary word. In addition, irrelevant and misleading personal anecdote. However, oversimplification of first Googled author (citation: p. 37). Thesis statement which doesn’t follow whatsoever from the previous.
Utterly contrived topic sentence revealing pretty much every flaw of structured essay writing. Therefore, supporting sentence invoking source that exists only in the bibliographies of other cited material (pp. arbitrary to arbitrary + 5). Contemplative question? Definitive refutation paraphrased from a blog found at 2AM:

“Massive block text to lend legitimacy to this sorry endeavor.”
Legitimate-sounding Anglo Saxon name (year between 1859 and 1967)

Obviously, non-sequitur segue. Utter misinterpretation of the only other author researched for this paper. Blind search for evidence reflecting increasing desperation (authors 4, 5, and 6). Moreover, loose observation to try to force coherence. Indeed, an attempt at humor!

Hence, statement violating every principle of syllogism followed by unnecessary semi-colon; forgettable punch line. Open-ended question undoing what little intellectual progress has been made? Filler sentence, which breaks entire flow of argument, specifically designed with maximum complexity in mind so as to solve lingering word minimum concerns.

Unconvincing conclusion statement. Empty belief that prompt has been answered sufficiently and requires no further investigation by anyone, ever. Last sentence, which consumed approximately 95% of the total mental effort dedicated—still reads clunky.
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Focus is the feature of effective writing that answers the question “So what?” An effective piece of writing establishes a single focus and sustains that focus throughout the piece. Just as a photographer needs to focus on a particular subject to produce a clear picture, a writer needs to focus on a single topic or main idea in order to produce an effective piece of writing. But finding a focus means more than just knowing what to photograph or write about. Good photographers also think about what they want their photograph to communicate. This affects their decisions about how to frame their subject in the shot, and whether to zoom in for a closeup or zoom out for a wide angle shot. Similarly, writers must think about what their topic should communicate. For a newspaper reporter, for example, finding a focus for a story means finding an “angle,” a perspective from which to tell the story.

Focus, therefore, involves more than just knowing what your story is about, but understanding why you are writing it in the first place. Without a clear focus, students’ stories, reports, and essays degenerate into lists of loosely related events or facts with no central idea to hold them together, leaving the reader to ask “So what?” By establishing a clear focus before they start to write, students can craft their writing into a coherent, unified whole. Finding a focus helps students find the significance in their stories, the message that they want to convey to their audience, their reason for writing. Establishing a clear focus also helps readers understand the point of the piece of writing. Readers don’t want to read a mishmash of unrelated ideas; they read to learn something new, to gain a new insight on an old idea, to view something from a new perspective or angle.

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