Attendees:
Alan Brown - Sciport, Jean Smith - BPCC
Ali Mustapha, P.E., F.NSPE - City of Shreveport, Jeffrey Anderson, PE, PMP - City of Bossier City
Dale Higdon - Student, John Wilson, P.E. - John J. Gurth Associates
Dave Rambaran, P.E. - Dave Rambaran Geosciences, Jonathan “Mitch” Guy PE - Civil Design Group
Deanna Hardy - BPCC, Josh Gomez - Student
Dr. Clif Fritol, PE - LSUHSC, Laura Goadrich, Dean - BPCC
Dr. Ed Thomas - BPCC, Lou Papai - LSUHSC
Dr. Jim Henderson - Chancellor, BPCC, Mark Jusselin, PE - LSUHSC
Dr. June Schneider, PE - BPCC, Michael Duffy - Coyle Engineering
Dr. Miles Hitchcock - BPCC, Richard Houghton, Jr, Colonel, - Red River Post, SAME
Dr. Stan Wilkins - BPCC, Spencer Bernard - Student
Ed Chopin - BPCC, Stanley Harris, PE - City of Shreveport
Emily Jones - Student, Tanita Baker, PE - EJES, Inc
Frank Viviano - BPCC, Twana Harris - BPCC
Hisham Hegab, Ph.D. - College of ENGR and Science

Call to order: Dr. Schneider opened the meeting by introducing Chancellor, Jim Henderson. The Chancellor updated the board on the progress on BPCC’s new building and the engineering, technology, construction and manufacturing programs that will be created and expanded when construction is complete this summer.

Round Table Introductions – Dr. Schneider introduced two new board members, Scott Mundy and Corey Wilson and bid farewell to Col. Warner who is retiring and relocating to Virginia.

Approval of Fall Minutes – Stanly Harris asked the board to approve the minutes from the meeting October 3, 2014. The motion was passed unanimously. The board members were emailed a copy of the following revisions prior to meeting:
- Revised Advisory Board Charter Approval
- Revised Program Objective Approval
Mr. Harris made a motion to accept changes the revisions for both items, the motion passed unanimously as written.

Dr. Schneider welcomed the Faculty:

Calculus Faculty:
- Full time – Miles Hitchcock, PhD
- Full time – Deanna Hardy, MS
- Adjunct – Clif Fritol, PhD, PE

Physics Faculty:
- Full time – Charles Reed, MS

Engineering Faculties:
- Full time – June Schneider, PhD, PE
- Adjunct – Clif Fritol, PhD, PE
- Adjunct – John Wilson, MS, PE – NEW ADJUNCT
Adjunct – Mark Jusselin, MS, PE – NEW ADJUNCT

**Program Core Courses**
- Math: Calculus I – IV
- PHYS: PHYS I & II (Cal- based)

**Approved by the board and have been added:**
- Differential Equations, MATH 254
- ENGR Electives:
  - ENGR Internship, ENGR 299
  - TEED 161 – Solid Works
  - GIS in Engineering

A discussion about the need for GIS was pursued. Multiple advisory board members encouraged the offering stating that there is a present need for more qualified GIS technicians; in particular Mark stated that there is not currently a license for GIS, but there is a large and constant demand. Dr. Schneider proposed adding the course as another option for students to be able to take, with the realization that this course would not transfer to Tech via the original articulation agreement.

**State of the Department – ENGR Faculty, Staff and Students**

_S June Schneider:_ status of the Department, Enrollment and Graduation Data, WebWorks implementation, meet new adjunct faculty, Added CAD course, acknowledge of various supports.

Dr. Schneider discussed the growing gap between the number of declared students that declare engineering as their major, yet start in MATH 097 for their first MATH course. On the other hand, there are a good number of students who come in with a high ACT score who can immediately enroll in the Calculus sequence of classes.

Dr. Schneider discussed the goals of WebWorks with the idea of having an automatic, electronic homework assignments generated. During trails in her classes, there were complaints from students saying the problems didn’t match the material they were studying in the course.

_Miles Hitchcock & Deanna Hardy:_ Calculus Series

Dr. Hitchcock reported there is a weakness in algebra subsequently students do not do well in calculus. Therefore, the math faculty will be working to modify the existing MATH 111. Starting in fall 2014, we will be offering a pre-calculus (MATH 111) course that consists of algebra and pre-calculus concepts in a first 8 weeks. In the next 8 week offering of the semester we will offer Trigonometry (MATH 112) to better prepare the students for the first offering of calculus. The engineering students will then take a full semester of Calculus I followed by half sessions of Calculus II (B term), III (C term), IV(B term) & DE (C term):

<table>
<thead>
<tr>
<th>Session</th>
<th>Course</th>
<th>Title</th>
<th>Duration</th>
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<tbody>
<tr>
<td>B-Session</td>
<td>MATH 111</td>
<td>Precalculus Algebra</td>
<td>1/2 Session</td>
</tr>
<tr>
<td>C-Session</td>
<td>MATH 112</td>
<td>Trigonometry</td>
<td>1/2 Session</td>
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<tr>
<td>A-Session</td>
<td>MATH 250</td>
<td>Calculus I</td>
<td>Full Session</td>
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<tr>
<td>B-Session</td>
<td>MATH 251</td>
<td>Calculus II</td>
<td>1/2 Session</td>
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<tr>
<td>C-Session</td>
<td>MATH 252</td>
<td>Calculus III</td>
<td>1/2 Session</td>
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<tr>
<td>B-Session</td>
<td>MATH 253</td>
<td>Calculus IV</td>
<td>1/2 Session</td>
</tr>
<tr>
<td>C-Session</td>
<td>MATH 254</td>
<td>Differential Equations</td>
<td>1/2 Session</td>
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Dr. Hitchcock also recommended the need to have a night class offering for the ENGR courses due to the increased demand from working students.

_Charles Reed:_ Physics Curriculum

Charles gave an update of the physics offerings and collaborating with Dr. Schneider to ensure that the offerings met the needs of the Engineering students and avoided conflicts.

_Clif Frilot & John Wilson & June Schneider:_ Engineering Curriculum
Dr. Schneider discussed the engineering recruiting efforts. She has been working with after school programs to assist in teaching middle school and worked at the last science fair. Dr. Schneider is planning on meeting with high school counselors to provide handouts and information on the engineering offerings.

**Ed Thomas:** Engineering Hall

Dr. Thomas updated with the number of students attending the Engineering tutoring sessions. The majority of the students in fall were from Calculus 1, with 22 students receiving assistance over the entire semester. That represents 75% of the engineering majors in Calculus 1. There was also a strong representation from the Calculus 2-4 students requesting tutoring assistance. Dr. Thomas receives a stipend to hold the tutoring sessions and the main students who attend are upper level calculus students who are all declared engineering majors.

**Laura Goodrich:** ATMAE cancellation

ATMAE does not accredit any Engineering titled programs. The only programs that ABET will accredit for two-year colleges include programs titled Engineering Technology. Therefore, to accredit through ABET, we would have to change the program name through the LCTCS and Board of Regents before applying. We have sent a letter to the Board of Regents updating them about the concern and the restrictions. The reason for pursuing accreditation was due to a follow-up report request from the Board of Regents.

**Spenser Berniard:** Student Engineering Society (SES)

Spenser Berniard, President Student Engineering Society (SES) gave an overview of the SES and talked about their purpose and the success they have had with community outreach programs. These outreach efforts include:

- Primary School After School Programs
- Exxopolis: Architects of Air (Red River Revel)
- Goodwill Fundamental Engineering Project
- Boy Scout Engineering Badge.

The future programs SES has planned for 2014 include:

- High School Outreach (Junior/Senior/Engineering Programs)
- Engineering Week

SES Member Events for 2013-2014 include:

- 4-year University Tours / Events for students planning to transfer.
  - Engineering Science Day – 3/19 (LA TECH)
  - Spring Release – 3/20 (LA TECH)
- Professional Industry Guest Speakers:
  - Mr. Russ Gedeon, P.E. - AEP 3/26
  - Mr. Jonathan “Mitch” Guy, P.E. – Civil Design Group – 4/30
- Seminars / Workshops Partnered with SAME

2014 Student Leaders Workshop, Las Vegas, NV.

Future aspirations for the SES include:

- More Partnered events with our 4-year transfer universities. (La Tech, ULL and LSU)
- Programs to benefit the 4 year specific engineering majors of our students.
- Team building events for networking with students, faculty and engineering professionals.

**12:30 p.m. BPCC transfer to LA Tech – Hisham Hegab**

Dr. Hegab discussed the students transferring to Tech, including the 15 spring graduates that are planning on transferring. He recommended setting up a special alumni group for BPCC Engineering students who are transferring to assist with any concerns. Dr. Hegab also mentioned the importance of having the current SES members speak to high school students to help promote the BPCC programs using students who are peers.

Dr. Schneider continued with the discussion on the need to continue to recruit for the Engineering program. There are plans to create a website for Engineering and the student SES organization including high school recruitment strategies. This will help promote the program and update area students about the articulation agreement that exists for BPCC and
Tech. Furthermore, Dr. Schneider would like to educate key middle school teachers about the opportunities to pass on to their students. Other promotion opportunities discussed by the committee include booths at the science fair, ArtBreak, professional teachers council, Jusselin high school counselors, Digifest, SciPort and the MakerFair. There was also discussion about speaking to the engineering magnet component at Captain Shreve.

Dr. Hegab reported that the four students who transferred from BPCC to La Tech are doing well, but they are struggling with the material. Dr. Hegab will meet with Dr. Schneider after the meeting to discuss the areas of concern in more detail and ensure a smoother transition for future students.

12:45 p.m. ULL-BPCC Articulation Status – Terrence Chambers
Dr. Chambers discussed the recently signed articulation agreement. The agreement is unique as there is a specific agreement for each of the seven different engineering degrees at ULL. This agreement will provide additional opportunities for graduates of BPCC to have choices for their 4-year college. The transfer curriculum modifications were discussed.

1:00 p.m. LSU-BPCC Articulation Status – Warren Waggenspack
Dr. Schneider updated the group that there is an articulation agreement pending review at LSU-Baton Rouge.

1:15 p.m. Resource Support for the Department
1. Opportunities Checklist: Internship, Field Trip, Scholarship, speakers for SES and ENGR 100, Sponsorship for SES monthly luncheon

Dr. Schneider discussed the small number of faculty at BPCC for engineering, which limits the types of projects that students can complete in ENGR 100 for the freshman design project. Dr. Schneider discussed a recent project to have students create a wheelchair assistive device that attaches a cart for carrying needed objects to the wheelchair. This project was done in support of the area Goodwill and was conducted under the guidance of Dr. Wilson. An important part of the project is to look up information on how much it would cost and what the value would be.

Another department change is the modification to ENGR 100 textbook. All changes to textbooks and course materials are discussed with the transferring institutions.

2. Grants Collaboration between two year and four year colleges

Wilson recommended having scholarships for students to transfer from BPCC to Tech. The recommendation was for two scholarships at $1000 each to help transition students in need.

1:25 p.m. Suggestions of next meeting topics, other business & Announcements

With such a large number of students declaring interest in mechanical engineering, the group recommended working on a method to expose engineering majors to all areas of engineering to ensure that they are selecting the area of concentration beyond commonly known fields. It was also recommended to hold exit interviews with graduating students to gather additional information about their time in the program and their recommendations and reflections.

Another concern arose in regards to retention. With such a large number of declared engineering majors starting in MATH 097, the advisory board would like more details on the retention of students at BPCC through the developmental math sequence.
Several of the upcoming events include Engineer’s week, increasing student involvement at the upcoming Shreveport convention. SAME will meet March 11th and BPCC will have the opportunity to present the current offerings for engineering.

1:30 p.m. Meeting Adjourned