PETAC Meeting Minutes - January 25th, 2016

Attending Committee Members - David DeWitt (acting chair), Dan Caron, Michele Munson, Thelma Brown, Eric Feldborg
Attending Guests - Mary Laturnau, Rosabel Deloge

1) Motion to approve minutes of 11/30/2015 meeting. Moved by Dan & seconded by Thelma - Unanimous vote to accept as presented.

2) Michele EPSCOR update
   Survey for Elementary Teachers Re: STEM Compliance with NGSS
   What units are being taught
   Time spent teaching science
   What resources are needed
   Michele reported some teachers teach bio-tech related material
   The survey supports NH STEM TF recommendations
   Also supported by NHSTA
   Doug Earick is the K-12 Science Coordinator at DOE

3) Dave asked Mary to update the committee on the status of Legislative changes to allow K-5 access to PETAC funding. Mary commented that she is working with Norm to get this action item completed in this budget cycle.

4) Dave asked Mary for any updates she has on other STEM related funding options. Mary met with Judy Burrows of NHCF. As part of the NHCF Advanced Manufacturing focus in the Monadnock Region there may be options for Elementary Schools to get matching grants for up to $5000 for STEM programing. This could be used to help with implementing PLTW LAUNCH programs in addition or until PETAC matching funds are available.

5) Dave asked Mary about the dates for the 2016 Girls in Technology Day. Mary commented they are in March as follows
   3/15 at NHTI (organized by Courtney Ritchings DOE CTE)
   3/16 at GBCC (cancelled)
   3/17 at UNH Durham (organized by Courtney Ritchings DOE CTE)
   3/18 at MCC (organized by Kate @MCC)
6) Old Business - None

7) Eric presented the Hudson Middle School Pre-Engineering Application Discussion: Michelle - Coordination with the High School PLTW is planned in addition there are plans to offer PLTW LAUNCH in 1-2 years. This would make Hudson a PLTW district. A motion to approve was made by Michele and seconded by Thelma. The motion carried unanimously. Dave signed and dated for Val Zanchuk. Eric will contact Val to add his formal signature electronically.

8) CTE Update - The committee congratulated Eric on his new position as Director of CTE at DOE. Eric commented that his previous position as NH STEM Coordinator is currently being posted internally at DOE. Eric also announced that the next NH STEM TF meeting is Wednesday 2/10/16 from 3-5 pm at DYN headquarters on 150 Dow ST.. This is a public meeting although guests cannot participate unless called on.

9) New Business:

Dan - NHTEA WEEK will be February 15-19. The national week is the week after the NH week. For more information on the NH event check their website at www.nh-tsa.us. Dan will email the committee members with the events he has planned at Bedford HS for Feb 8-12 & 15-19.

Dan - NHTSA will sponsor Technical Student Association Day this year on March 17 & 18. The event will be at the Attitach Grand Summit Hotel in Bartlett NH. They are in need of Judges!! Please contact Julie Sicks-Panus at sicksj@yahoo.com.

Dan - WinnAero is sponsoring 4 Aerospace Dimensions workshops in March/April. These are full day Saturday workshops. PSU grade credit is available for teachers who attend 2 sessions. Sessions include Rocketry, the Space Environment, Spacecrafts, CAP Aerospace Excellence Program. More information at http://www.winnaero.org/#!teachers-workshops/c1o14
Dan - ACE Academy, Aerospace Career Education, will once again offer elementary, middle and high school programs this summer. This year, students will register for career strands: pilot, air traffic control, airframe and power plant, aerospace engineering/manufacturing, search and rescue. More info at http://www.winnaero.org/#!ace-academies/c6sy

Editor Note - For more information on any of these great NH STEM programs please contact Dan Caron directly at dwcaron@hotmail.com

Dave recognized Rosie for a question related to an upcoming Pre-Engineering Application she and Dr. Mihaela Sabin are working on for a CS program at Concord HS. Eric said he was aware of the pending activity and that his department would work with Roise and Dr. Sabin. Eric indicated that he did not see any issues with the application process moving forward at this time.
PETAC MEETING MINUTES - March 28, 2016 – 3:00PM

ATTENDING: Karen Hannigan Machado (khanniganmachado@mansd.org), Val Zanchuk, Mary Laturnau, Eric Feldborg, Michele Munson, David DeWitt, Rosabel Deloge, Thelma Brown, Nick Soigu, Dan Caron, Bob Arredondo

ABSENT: Beth Doiron, Nichole MacMillan, Dr. Lauren Provost

1. Introductions - 2 guests today; Rosie Deloge and Mary Laturnau
2. Review January and February minutes-no changes – motion to accept minutes as is: Val Zanchuk and seconded by Karen Machado
3. Review existing legislation, PETAC Membership, PETAC/DOE operating procedures- application from Litchfield and Concord brought by Mary Laturnau and Rosie DeLoge. Norm Majors is back full steam but needed at a legislative meeting today.
   The new legislation does not include the elementary for dollars. Norm was going to try but got sick and had been out for a length of time. It is too late now to make the changes now.
   We have come up with an application for legislative funds for engineering, as completed by Lisa Danley, so there is a uniform process for all. Are there any issues? Eric Feldborg stated that there was a lot to go through but everyone has to do the same. We will still review various curricula that come through.

Member comment: The application is still very focused on pre-engineering as opposed to Computer Science. Can we look at making it so it can be used for either? Anything that falls under the PLTW is alright. At MST 2 years ago we agreed that Computer Science was an appropriate curriculum to add. The basis of the application came from PLTW and therefore why it is framed the way it is. We felt the computer science met the requirements of the attributes of pre-engineering, such as computer engineering. The legislation was written 15 years ago and technology has changed and we are not so rigid. Design methodology, problem solving and engineering principles fit to that particular computer science curriculum. It is our responsibility to translate the guidelines of the legislation written long ago so it is not rewritten at the state level each time.

Will this application be ok for the Elementary program? They will not be connected to a CTE center but we would have to put N/A for that and any other non-applicable pieces. Michele suggested changing the amounts so that it could go further into more schools. The amounts are based on former costs and now the costs are not as high. Val feels like the max amount is not a number that has to be adhered to. We can decide what is applicable too and also has to be matched by the school or district. We would like to try to keep a pool of money to keep the programs going. It would be great to give the elementary and middle to funnel to the high schools. Mary sees all schools at least 1 time a year.

Is there new staff to reviewing the applications with an eye to the new application and the costs? They are aware of all that is new. The money has not been tapped out. Should we have a timeline for approval and when to begin? When does the match come in? Eric showed the section on the application where it was listed.

Eric corrected the statement that he was not adding $150,000 but that it was still there and it had not been lost. We need real commitments from schools. There will not be a lot of $50,000
requests. An elementary school could be $5,000 to $10,000. It is difficult to ask for more funds when we had not spent the last amount. With the new ESSA and it being pushed to elementary, there may be a flood of requests so should ask for more? We won’t have the back up yet. Mary has general data for PLTW but not EbD. Nick Soigu would like to see the stats prior to asking for funds that we won’t use. We also have a new application as well. There is committed funds to 2 schools. There is $80,000 available until 2017. This is the rollover. Nick feels we should ask for $200,000 based on what the future proposals should hold. We are most likely not to give a $50,000 award to any one school. Eric asked if $200,000 would be a comfortable number for PETAC to consider. Michele Munson made the motion that was seconded by Nick Soigu.

Where are we on evaluating programs? Bob oversees the PLTW programs and certifications. Litchfield Application – are there any questions or concern? There was a question about funding Grade 5. Some middle schools have grade 5. The group reviewed the application and asked questions. There were some questions for Mary about curriculum. The application was returned since there was too much personal information. The vote for the application had 1 abstention and no disapprovals.

4. CTE/Community College update – Val talked about his visit to Keene CTE center for their advisory night. He also met with Keene State on manufacturing. Senator Watters advisory committee is up and running again and Val is on that. Karen presented with her teachers at the NESSC national conference on their unique model of integrating academic competencies in CTE. Are there any Community Colleges training teachers for STEM and CTE? SNHU is looking for a master’s degree in STEM Education. Where will these teachers come from to work in all these proposed programs? Rhode Island College and Central CT are the only ones available.

5. Old/New business- Michele asked about the logo we chose last year since Corrine Cascadden wanted to know. She used to be on the committee. She said she has never resigned. We do have the logo and it was digitized. Courtney sent some stuff on the new website so we will ask.

6. Adjourn no later than 4:30PM

NEXT MEETING – May 2nd at 3PM and then May 23rd.

Approved July 11, 2016
Members in attendance: Bob Arrendondo, Thelma Brown, Dave DeWitt, Val Zanchuk, Nicole McMillan, Eric Feldborg, Nick Soggu, and Michele Munson

Guests: Courtney Ritchings, Mary Laturnau, Delese Hovey, Ian Atwell, Travis Cole, and Mike Fredrickson

After introductions, Val shared a brief history of PETAC and the visitors from Nashua, shared plans for their STEM program outlining the history of its development.

The Nashua programs presented for PETAC approval and funding is a middle school based program using a district developed curriculum emanating from the Carnegie Mellon Robotic program focusing on skill attainment, but providing numerous exploratory opportunities to assist students to make future course and career choices. The Nashua representatives described how they had reviewed numerous programs and requirements to develop the scope and sequence for their program.

PETAC members asked clarifying questions and offered suggestions regarding the program implementation.

Michele Munson moved and Nick Soggu seconded the motion to approve the curriculum in all the Nashua middle schools. The motion passed 8/0.

Bob Arrendondo moved and Thelma Brown seconded the motion to approve their three grant requests for $45,000. The motion passed 8/0.

(The Nashua representatives left the meeting)

There was discussion of the Hopkinton application. Thelma Brown moved and Nick Soggu seconded the motion to approve their application. Motion passed 8/0.

There was discussion regarding the PTAC schedule for next year. The first meeting will be Monday, September 26 at 3:00 p.m. in the NHDOE building on Fruit St., Concord, NH. The meetings for 2016-17 will be the fourth Monday of the month at 3:00. Subsequent meetings will be 10/24, 11/28, for remainder of 2016.

The minutes of the previous meeting were approved Thelma moved and Dave seconded the motion. Motion passed 8/0.

At 4:38, Eric Feldborg moved to adjourn the meeting and Bob Arrendondo seconded the motion. The motion passed.
Respectfully submitted, Michele Munson
3:10-Meeting Called to Order

- Introduction of new members and guests
- Background of PETAC
  - Established in 2002
  - Support the introduction of pre-engineering programs at the high school level
- Financial update of funds expended
  - Activity from middle schools is increasing as programs move into those grades
  - Many programs have been teacher dependent
  - Money that has been allocated must be spent or new allocations may be held up in processing.
  - Career counselors need to be up to date in career opportunities for students that are available at CTE centers
- Dave Benedetto-Working on increasing computer science programs in the state.
  - How can we get computer science and engineering into the core programs as well as CTE centers?
  - Could computer science count towards math or science requirements for graduation?
  - Possibility of training math and science teachers to teach computer science classes.
- Bob Arrendondo (NHTI)
  - Many classes at NHTI are offered as Running Start
  - Project Lead the Way conference in January at NHTI
- Mary Laturnau
  - Summer training sessions for PLTW were very successful
    - 4 training sessions
    - Many elementary teachers
    - All but two were from NH
  - Computer programs through PLTW are now K-12
    - High school program is approved as AP level
  - Excellent PLTW Twitter feeds and Facebook page for PLTW_NewEngland
- Carmela Amato-Wierda (UNH)
  - STEM Ambassadors from UNH to Berlin
  - Summer Tech Camp growing, grades 11 and 12 added this summer
  - Teachers’ professional development offered
    - They continue to work year-round
  - All girls programming very popular
    - Now offered for grades 6-8
    - Requested to be added to high school level as well
  - Looking to expand the summer camp to administrators and parents
  - End goal is to have the camp free for everyone.
  - UNH Tech Camp
  - A Saturday camp is being planned for March 2017.
• Legislative Update
  o RSA-E:14 Pre-Engineering Technology Curriculum: Minor changes to wording
    ▪ I. Changed 6-12 to K-12
    ▪ I. ...science, technology, engineering and mathematics for students in
      kindergarten through grade 5
    ▪ IV. Changed grades 6-12 to K through 12
  o It is so important to expand down to K
  o Important to have support at legislative hearing
  o Connect with industry leaders to support

• Workforce Development
  o 65X25-By 2025, 65% of our workforce will need some post-secondary education
  o 2015-2025: An additional 90,000 people will have to be trained
  o Currently at 51% in the state
  o State revenue is dependent upon a better payed workforce
  o Many businesses having difficulty finding qualified employees
    ▪ Example: Two Manchester area companies needed tube benders. Not enough
      qualified. MCC developed a three course program to teach the skill at night
      while people are employed during the day in the field.
  o Sector Partnerships
    ▪ Manufacturing
    ▪ IT
    ▪ Healthcare
    ▪ Hospitality

• Reaching Higher NH
  o Charitable organization that holds endowment money
  o Money is specifically designated for certain activities/organizations
  o Could they help to promote the work of PETAC?
    ▪ They promote organizations that they fund
    ▪ A grant could be requested to help PETAC show to do fundraising for an
      endowment

• 2016/17 PETAC Focus and Goals
  o Frequency of meetings? Monthly or quarterly?

Meeting Adjourned at 4:55 PM

Next Meeting-Monday October 24th
PETAC Meeting 10-24-16

Present: Val Zanchuck, Norm Major, Dave D., Bob A. Dave B, Carmela, Joe Cunningham, Nicole MacMillan, Barbara Hopkins

- Budget Report-Dave DeWitt detailed the use of proposed $200,000 budget for establishing pre-engineering programs. $185,000 needed to fund the establishment of some middle school, high school and CTE programs. Elementary programs would require an additional $115,000. Recommendation to request $300,000 instead of $200,000.
- Norm Major talked with Eric Feldborg. He recognizes the need for the $300,000, but recommends that the DOE write a letter of support for the increase in budget. It is essential that supporters show up at the legislative hearings to support establishing elementary programs.
  - Val emphasized that the legislators respond more to new faces rather than the usual lobbyists.
- Dave Benedetto-Questions about the finance note that was received. PLTW numbers were significantly different than initially presented. Questioned if the money could be better spent than spending on PLTW.
  - Val Zanchuck- only programs approved by PETAC are eligible for legislative funding. Any program seeking money for pre-engineering must come to PETAC for approval. PLTW has been approved.
  - Dave D.-A school with a curriculum can present to PETAC for approval.
  - Most money goes to equipment purchases
  - At elementary level, one teacher can train to be a master teacher and train others in the school.
  - Joe-Many states adopted PLTW, which set a standardized curriculum for all schools in the program. It is a turnkey program.
  - The fees for PLTW have come done in price.
  - Engineering by Design is also an approved program.
  - Nashua – PETAC also approved a middle school pre-engineering class program taken by all students.
  - We must work within the parameters of the legislation. Need to expand the legislation down to lower grades (K-4) and need to expand beyond CTE.
- A motion was made to increase the budget request from $200,000 to $300,000. The motion passed unanimously.
- No grant applications this month
- Legislation proposal to take the two years of CTE in junior and senior years
  - Sending school’s limited budgets mean that schools are denying access to CTE for some students.
- January 13th-Statewide PLTW conference at NHTI.
- Carmela-Where do we lose the students in the pipeline? Many engineering students drop out of the programs. Those who completed PLTW have higher retention rates.
- Upcoming-The Olson Manufacturing Center is being planned for UNH.

Next Meeting-December 12th.

Minutes approved Monday, January 23rd, 2017