NEW MILFORD BOARD OF EDUCATION
New Milford Public Schools
50 East Street
New Milford, Connecticut 06776

COMMITTEE ON LEARNING
MEETING NOTICE

DATE:	October 21, 2014
TIME:	7:30 PM
PLACE:	Lillis Administration Building – Room 2

REVISED AGENDA

New Milford Public Schools Mission Statement

The mission of the New Milford Public Schools, a collaborative partnership of students, educators, family, and community is to prepare each and every student to compete and excel in an ever-changing world, embrace challenges with vigor, respect and appreciate the worth of every human being, and contribute to society by providing effective instruction and dynamic curriculum, offering a wide range of valuable experiences, and inspiring students to pursue their dreams and aspirations.

1. CALL TO ORDER

2. PUBLIC COMMENT
The Board welcomes Public Participation and asks that speakers please limit their comments to three minutes. Speakers may offer objective comments of items on this agenda. The Board will not permit any expression of personal complaints or defamatory comments about Board of Education personnel and students, nor against any person connected with the New Milford Public School System.

3. DISCUSSION AND POSSIBLE ACTION
   - **A. Review and Approval of Curriculum**
     - **1. Grade 8 Technology** — **Mrs. Jennifer Morrison**
   - **B. Request for New Program or Course**
     - **1. AP Microeconomics** — **Mr. Joshua Smith**
   - **C. Revision of AP Physics** — **Mr. Joshua Smith**

4. ITEMS FOR INFORMATION AND DISCUSSION
   - **A. K-3 Report Cards** — **Mr. Joshua Smith**

5. ADJOURN

Sub-Committee Members: Mr. David A. Lawson, Chairperson
Mrs. Angela C. Chastain
Mrs. Daniele Shook
Mr. John W. Spatola

Alternates: Mr. Dave Littlefield
Mr. David R. Shaffer

The Grade 8 Technology
curriculum can be previewed in the
Office of the Assistant Superintendent
Lillis Administration Building – Room #6.

Office Hours: 8:00 a.m. – 4:00 p.m.

REQUEST FOR NEW PROGRAM OR COURSE

Principal's Signature: _____

Chair's Signature (If applicable): _____

Date: 10/10/14

Title of Proposal: AP Microeconomics

Person(s) Submitting Proposal: Dan Marcoux

Curriculum Area: Social Studies

Number of Credits/Level (if applicable): 1

Prerequisite Courses (if applicable): none

Grade(s): 11-12

1. Description of Program/Course: (What is it this course/program addresses? How does it relate to the Common Core? What other pertinent information about the proposal do you wish to share? (Use attachment if more space is needed.) "The purpose of the AP course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy" (collegeboard).

2. Describe the Current Situation and why the new proposal seems needed. Please also describe what alternatives were considered and what you believe are the advantages and disadvantages of the proposal (use attachment if more space is needed).

In addition to offering rich classroom experiences, the addition of AP level courses offers our students the opportunity to take college level courses while still in high school. Successful completion of the course gives students an advantage in the college application process and enables them to enter college with credits earned in high school. Initially department members considered offering only one single semester course, but decided that continuous contact with their AP teacher until the test was more beneficial. Administrators and teachers felt that students would be more successful if the course lasted an entire year due to the rigorous nature of the class and the lack of content familiarity amongst students.

3. Forecasted impact of change: (again, use an additional sheet if needed)

A. Please describe the likely impact of change on the students intended to be directly served by the program/ course.

The course will help students develop the skills and habits required in college. Microeconomics is a social science that often is a prerequisite for many Business majors in college. Allowing AP Microeconomics into the course of study for next school year allows students who are entertaining the idea of majoring in Business or Economics at university a chance to expose themselves to

essential content in a more nurturing and student friendly setting. Students will also be more prepared for Macroeconomics in college, allowing them to thrive within the confines of a college classroom. Adding this course allows students a challenging schedule giving them the opportunity to pursue an elective that may interest them. We already have a class for the academic and honors students of economics; creating an AP level of this course aligns with the district goals of increasing the number of students with AP level experience.

B. Will it have impact on other students, if so how.

It could have a slight impact on the makeup of other senior electives.

C. How will it affect students currently being served and are caught in a transition process? (If applicable)

It will have no impact.

D. What is the impact of this proposal on staffing?

It would not increase staffing but any new offering creates the potential of increasing the number of preparations for individual staff members.

E. Are there scheduling implications associated with this proposal? If yes, detail those implications.

None

F. Are there space implications associated with the program/ course?

None

G. How might this impact other programs? (Example: Is a new elective likely to affect enrollment in other departments?)

It is not likely to impact any other programs but it is possible that a substantial number of students taking this course rather than another could decrease enrollment elsewhere.

4. What resources are required by the program?

A. Is there a need for new technology? If so explain.

No.

B. What current materials will need replacement?

We would need to purchase textbooks and supplementary materials.

C. Are there staffing needs required because of the resources?

There are no staffing needs created by resources.

D. Would there be specific needs for materials for SPED or for ELL?

No.

E. Is specialized training required for staff?

No. The AP summer workshop has already been completed.

5. Who will be involved in curriculum writing and when does one envision it will occur?

6. Develop a projected budget of impact costs for three years:

Description	Year 1	Year 2	Year 3	Total
Costs of Text	$3,600.00*	0	0	$3600.00*
Supplies	$800	$200	0	$1000
Professional Development	0	0	0	0
Curriculum Writing	0	0	0	0
Staffing	0	0	0	0
Other (Identify)	0	0	0	0
Total	$4400.00	$200	0	$4600.00

* Based on costs of a new text for 30 students. College Board estimates for a text are lower but include more money for supplementals. Quality used texts are also available at a considerable savings.

The New AP Physics Courses

Why has the AP Program replaced AP Physics B with two new courses?

An in-depth study by the National Research Council (NRC) concluded that AP Physics B is a very broad course that encourages cursory treatment of very important topics in physics rather than cultivating a deeper understanding of key foundational principles. The NRC further concluded that students should experience a full treatment of Newtonian mechanics, including rotational dynamics and angular momentum, topics not covered in AP Physics B. They also emphasized the need for inquiry instruction and in-depth exploration of topics.

To achieve these important goals, and to provide the much-needed time for teachers to accomplish them, the NRC recommended teaching the course material in two years instead of one. After confirming this recommendation through college curriculum studies, higher education validations, state standards reviews, and AP teacher timing trials, the AP Program has replaced AP Physics B with two separate full-year courses: AP Physics 1: Algebra-Based and AP Physics 2: Algebra-Based. The new courses align strongly with college and university expectations; students and teachers will benefit in many ways.

AP will begin offering the new courses in the 2014-15 academic year, and will discontinue the AP Physics B program following the 2013-14 academic year.

How do AP Physics 1 and AP Physics 2 divide content?

AP Physics 1: Algebra-Based is the equivalent of a first-semester college course in algebra-based physics, but it is designed to be taught over a full academic year to enable AP students to develop deep understanding of the content and to focus on applying their knowledge through inquiry labs. The full year also allows time for inclusion of physics content specified by state standards. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It also introduces electric circuits.

AP Physics 2: Algebra-Based is the equivalent of a second-semester college course in algebra-based physics, but it is designed to be taught over a full academic year to enable AP students to develop deep understanding of the content and to focus on applying their knowledge through inquiry labs. The full year also allows time for inclusion of physics content specified by your state standards. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics.

Request for Course Revision

Signature of Principal: _____

Signature of Department Chair: _____

Date: October 8, 2014

Title of Proposal: AP Physics 1

Person(s) Submitting Proposal: Sara Del Mastro

Curriculum Area: Science

Number of Credits/Level: 1 credit / AP level

Prerequisite Courses: Concurrent enrollment in Algebra II and Chemistry

Grades: 11-12

1. Description of Program/Course: (What is it this course/program addresses? How does it relate to the Common Core? What other pertinent information about the proposal do you wish to share? (Use attachment if more space is needed.)

AP Physics 1 is an algebra-based, introductory, college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound, and introductory, simple circuits. Through inquiry based learning, students will develop scientific critical thinking and reasoning skills. This course requires that 25% of the instructional time be spent in hands-on laboratory work, with an emphasis on inquiry based investigations that provide students with opportunities to apply the science practices. Students will be required to use reading, writing, oral communication, and mathematics skills aligned to the Common Core State Standards. Students will also be fully engaged in inquiry based learning, supporting the Next Generation Science Standards.

2. Describe the Current Situation and why the new proposal seems needed. Please also describe what alternatives were considered and what you believe are the advantages and disadvantages of the proposal (use attachment if more space is needed).

After analysis on an in-depth study by the National Research Council (NRC), the College Board has split the AP Physics B curriculum into two full year courses. The NRC concluded that AP Physics B is a very broad course that encourages cursory treatment of very important topics in physics rather than cultivating a deeper understanding of key foundational principles. They also emphasized the need for inquiry instruction and in-depth exploration of topics. The new courses align strongly with college and university expectations; students and teachers will benefit in many ways.

AP Physics 1 will replace the AP Physics B course previously offered. Both juniors and seniors will be eligible to enroll in this course.

3. Forecasted impact of change: (again, use an additional sheet if needed)

A. Please describe the likely impact of change on the students intended to be directly served by the program/ course.

The course has been redesigned to offer a more in-depth teaching of fewer topics allowing for more inquiry learning and promoting a deeper understanding by students.

B.Will it have impact on other students, if so how.

There will be no impact on other students.

C. How will it affect students currently being served and are caught in a transition process? (If applicable)

This course will now be offered to juniors as well as seniors thereby increasing the number of science electives a student can choose to take.

D.What is the impact of this proposal on staffing?

There would be no impact on staffing as a result of this proposal No additional staff would be needed.

E. Are there scheduling implications associated with this proposal? If yes, detail those implications.

There are no scheduling implications as AP Physics has previously been offered at NMHS.

F.Are there space implications associated with the program/ course?

There are no space implications with this course. The course will be held in one of the current science classrooms.

G. How might this impact other programs? (Example: Is a new elective likely to affect enrollment in other departments?)

This course should not impact any other courses.

4. What resources are required for the program?

No additional equipment will need to be purchased.

A. Is there a need for new technology? If so, explain.

There is no need for any new technology. Students will utilize the technology and computer labs currently available as well as personal devices.

B. What current materials will need replacement?

There are no replacement materials needed at this time.

C. Are there staffing needs required because of the resources?

There are no staffing needs.

D. Would there be specific needs for materials for SPED or for ELL?

Materials would be needed based on the IEP/504 needs of any enrolled students.

E. Is specialized training required for staff?

There is no specialized training for staff required.

5. Who will be involved in curriculum writing and when does one envision it will occur?

The curriculum is outlined by the College Board. Members of the science department that currently teach physics will review this curriculum during CLT time in order to more specifically plan lessons.

6. Develop a projected budget of impact costs for three years:

Description	Year 1	Year 2	Year 3	Total
Costs of Text	$0	$0	$0	$0
Supplies	$0	$0	$0	$0
Professional Development	$0	$0	$0	$0
Curriculum Writing	$0	$0	$0	$0
Staffing	$0	$0	$0	$0
Other (Identify)	$0	$0	$0	$0
Total	$0	$0	$0	$0

Request for Course Revision

Signature of Principal: _____

Signature of Department Chair: _____

Date: October 8, 2014

Title of Proposal: AP Physics II

Person(s) Submitting Proposal: Sara Del Mastro

Curriculum Area: Science

Number of Credits/Level: 1 credit / AP level

Prerequisite Courses: AP Physics I

Grades: 11-12

1. Description of Program/Course: (What is it this course/program addresses? How does it relate to the Common Core? What other pertinent information about the proposal do you wish to share? (Use attachment if more space is needed.)

AP Physics 2 is an algebra-based, introductory college-level physics course that explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. This course requires that 25% of the instructional time be spent in hands-on laboratory work, with an emphasis on inquiry based investigations that provide students with opportunities to apply the science practices. This will promote the development of scientific critical thinking and reasoning skills. Students will be required to use reading, writing, oral communication, and mathematics skills aligned to the Common Core State Standards. Students will also be fully engaged in inquiry based learning, supporting the Next Generation Science Standards.

2. Describe the Current Situation and why the new proposal seems needed. Please also describe what alternatives were considered and what you believe are the advantages and disadvantages of the proposal (use attachment if more space is needed).

The AP Physics course was split into two courses by the College Board this year. Currently we offer AP Physics I to juniors and seniors. Offering AP Physics II will increase the number of AP science courses offered but allow students to deepen their understanding of physics.

3. Forecasted impact of change: (again, use an additional sheet if needed)

A. Please describe the likely impact of change on the students intended to be directly served by the program/ course.

Juniors or seniors who meet the prerequisite courses would be eligible to take this course as a science elective. This will also increase the opportunity for students to enter college with credits earned in high school. This also will strengthen the resume of students planning on entering the field of engineering in college.

B. Will it have impact on other students, if so how.

In order to accommodate this course, we will offer one less section of physics. Currently there are a number of junior and senior students taking AP Physics I. The juniors will have the opportunity to enroll in AP Physics II.

C. How will it affect students currently being served and are caught in a transition process? (If applicable)

Juniors who successfully complete AP Physics I will be able to continue in the course progression by taking AP Physics II.

D. What is the impact of this proposal on staffing?

There would be no impact on staffing as a result of this proposal No additional staff would be needed.

E. Are there scheduling implications associated with this proposal? If yes, detail those implications.

The number of sections of other physics courses will be reduced by one.

F. Are there space implications associated with the program/ course?

There are no space implications with this course. The course will be held in one of the current science classrooms.

G. How might this impact other programs? (Example: Is a new elective likely to affect enrollment in other departments?)

This course should not impact any other courses.

4. What resources are required for the program?

The only resources required for this course would be the consumable material for the student projects. The students would be utilizing the same equipment previously used in the prerequisite courses so additional equipment would not need to be purchased.

A. Is there a need for new technology? If so, explain.

There is no need for any new technology. Students will utilize the technology and computer labs currently available as well as personal devices.

B. What current materials will need replacement?

There will be some equipment and materials that will need to be purchased. An itemized list will follow.

C. Are there staffing needs required because of the resources?

There are no staffing needs.

D. Would there be specific needs for materials for SPED or for ELL?

Materials would be needed based on the IEP/504 needs of any enrolled students.

E. Is specialized training required for staff?

One member of the science department would need to attend training over the summer at Taft to become certified to teach this course.

5. Who will be involved in curriculum writing and when does one envision it will occur?

The curriculum is outlined by the College Board. Members of the science department that currently teach physics will review this curriculum during CLT time in order to more specifically plan lessons.

6. Develop a projected budget of impact costs for three years:

Description	Year 1	Year 2	Year 3	Total
Costs of Text	$3000.00	$0	$0	$3000.00
Supplies	$1000.00	$200.00	$200.00	$1400.00
Professional Development	$900.00	$0	$0	$900.00
Curriculum Writing	$0	$0	$0	$0
Staffing	$0	$0	$0	$0
Other (Identify)	$0	$0	$0	$0
Total	$4900.00	$200.00	$200.00	$5300.00