Course Material Submission Form
OAN Match Definition Form

Today's Date:	June 12, 2007

Use this table to specify institutional data	
College/University:	Cuyahoga Community College
Name and title of individual submitting on behalf of the college/university	
Name:	Peter Ross
Title:	District Director, Transfer and Alternative Credit
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Indicate the reason for this submission:

☐ New Course Match
☒ Revised Materials - Faculty review panel requested clarification
☐ Revised Materials - Institution submitting additional information
☐ Revised Materials - Course content revised by institution, including situations of both content and credit hour change
☐ Revised Materials – Other

Describe specific revisions being made for "Revised Materials" submissions:
Working syllabi from Spring 07 academic term being submitted for request to provide a week by week description of the lecture and lab topics.

Institutional Notes to Faculty Panel (the institution is encouraged to add any additional clarifications for this submission):

Table 1 – Use this table to describe the course match for which materials are being submitted for the first time or revised.

Proposed effective year and term of match (Final effective date will depend on actual approval of match by faculty panel. Effective Year and Term is the first term in which students taking the course will receive matching credit.)

Semester institutions complete this row:

20 07-08 Academic Year ☐ Summer ☒ Autumn ☐ Spring

Quarter institutions complete this row:

20 Academic Year ☐ Summer ☐ Autumn ☐ Winter ☐ Spring

Ohio Articulation	**OSC014**

Number (OAN) (Use a separate form for each OAN.):	
Number of courses in the match:	1 (up to 10)
Current status of match:	☐ First time submission ☐ Approved ☐ Submitted ☐ Disapproved ☐ Error ☐ Resubmitted ☒ Pending ☐ Error with enrollment ☐ Not submitted

Course or Courses being matched to or currently matched to the OAN listed above. (Course Numbers must be exactly what will appear on a student's transcript.):		**Course Number**
	1.	PHYS-1210
	2.	
	3.	
	4.	
	5.	
	6.	
	7.	
	8.	
	9.	
	10.	

Table 2 - Use this table to submit course materials for the first time or to revise previously submitted course materials. You must submit each course in a separate form, repeating the match definition information in Table 1 above for each form submitted.

Course Number. **(Course Numbers must be exactly what will appear on a student's transcript.):**	PHYS-1210	**Course Title**:	College Physics I

Hours **(be sure that the hours for this course matches the hours in the OAN.)**

☒ **Semester Hours** ☐ **Quarter Hours**

Total Credit Hours	4	**Lecture Hours**	3	**Laboratory Hours (if applicable)**	3

Course Placement in Major:	☐ Major Requirement ☐ Major Elective ☒ Other

Pre-Requisite Course work (if applicable) (Be sure this is consistent with the OAN definition)**:**

MATH-1160 Technical Mathematics I ; or MATH-1200 Intermediate Algebra ; or departmental approval.

Catalog/Course Description:

Kinematics, vectors, and Newtonian mechanics (forces and motion, gravitation, energy, momentum, rotational motion, simple harmonic motion), fluids, heat, and thermodynamics. Emphasis on problem solving using algebra.

Texts/Outside Readings/Ancillary Materials (Be sure that the text meets performance expectations)**:** PHYSICS, 2005 (6th edition) AUTHOR: Giancoli, Douglas C

Course Objectives and/or Plan of Work:
(Provide a clear indication of how the course objectives align with the matched OAN's learning outcomes. This will facilitate the faculty panel course review process.)

Board of Trustees Date: 10/23/97
Effective Date: 08/26/98

CUYAHOGA COMMUNITY COLLEGE

OFFICIAL COURSE OUTLINE

SUBJECT AREA TITLE	Physics
COURSE TITLE	College Physics I
SUBJECT AREA CODE-COURSE NUMBER	PHYS - 1210
COURSE CREDIT HOURS	04

I. DESCRIPTION OF COURSE:

A. CATALOG DESCRIPTION:

Kinematics, vectors, and Newtonian mechanics (forces and motion, gravitation, energy, momentum, rotational motion, simple harmonic motion), fluids, heat, and thermodynamics. Emphasis on problem solving using algebra.

B. LECTURE HOURS: 03

C. LABORATORY HOURS: 03

D. OTHER REQUIRED HOURS: 000

E. PREREQUISITE(S): MATH-1160 Technical Mathematics I ; or MATH-1200 Intermediate Algebra ; or departmental approval.

II. OUTCOMES/OBJECTIVES:

Upon successful completion of PHYS-1210 College Physics I, the student should be able to:

A. Apply linear motion equations to solve problems.
B. Use vectors to solve motion problems and statics problems in two and three dimensions.
C. Apply Newton's three laws of motion in problems.
D. Use Newton's law of gravity in problems such as space flight..
E. Work with the laws of energy and momentum conservation in motion problems.
F. Make correct predictions involving torque and rotational motion.
G. Solve problems in fluid statics and mechanics.
H. Do simple harmonic motion problems.
I. Analyze problems involving heat and thermodynamics.
J. Do laboratory experiments involving the above topics, analyze the data, and report on it appropriately.

III. COURSE CONTENT:

A. Linear motion
B. Vectors
C. Newton's laws of motion and gravitation
D. Conservation of energy
E. Conservation of momentum
F. Rotational motion and equilibrium
G. Simple harmonic motion
H. Fluid statics and mechanics
I. Heat
J. Thermodynamics

IV. METHODS OF STUDENT EVALUATION MAY INCLUDE ANY OF THE FOLLOWING:

A. Quizzes
B. Hour examinations
C. Final examination
D. Laboratory reports
E. Problem assignments

V. RESOURCES MAY INCLUDE ANY OF THE FOLLOWING:

A. Serway, Raymond. *Principles of Physics.* 2nd ed. Saunders College, 1998.

Description of Assessment and/or Evaluation of Student Learning (The assessment plan needs to be appropriate for the expected rigor of the course) :

See Master Syllabi below

Master Syllabi and Working Syllabi (if both are used):

CUYAHOGA COMMUNITY COLLEGE
DIVISION OF HEALTH CAREERS AND NATURAL SCIENCE
COURSE SYLLABUS

SUBJECT AREA: PHYSICS
COURSE NAME: COLLEGE PHYSICS I
COURSE NUMBER: PHYS 1210 **SECTION NUMBER:** 10205, 10207 and 13426
PREREQUISITES: MATH 1160 or MATH 1200
SEMESTER: Spring, 2007
DAY AND TIME: **LECTURE:** Mon.,Wed., Fri: 11:00 AM TO 11:50 AM (10205)
LABORATORY: Mon.: 12:30 PM TO 3:15 PM (10207)
Fri.: 12:30 PM TO 315 PM (13426)
CREDIT HOURS: 4.0
TEXTBOOK: TITLE: PHYSICS, 2005 (6th edition)
AUTHOR: Giancoli, Douglas C

OUTCOMES/OBJECTIVES: Upon satisfactory completion of PHYS 1210 - College Physics I, the student should be able to perform the following outcomes and supporting objectives:

Apply linear motion equations to solve problems.
Use vectors to solve motion problems and statics problems in two and three dimensions.
Apply Newton's three laws of motion in problems.
Use Newton's law of gravity in problems such as space flight.
Work with the laws of energy and momentum conservation in motion problems.
Make correct predictions involving torque and rotational motion.
Solve problems in fluid statics and mechanics.
Analyze problems involving heat and thermodynamics.
Describe the influence and utility of these principles on the environment.
Perform and appropriately document laboratory experiments involving the above topics.

TENTATIVE ASSIGNMENT SCHEDULE: Please consult attached lecture schedule.

GRADING PROCEDURES AND DESCRIPTION OF TESTING: The student's final grade will be based upon the six examinations (100 points each), and 130 points available by attendance in all the scheduled laboratories and completion of all the lab reports. The examination dates are on the attached schedule. The maximum number of points available is 730 points. The student's total will be normalized to 100 point scale. Final grades will be based on the following scale:

Student's Normalized Student's

Points	Final Grade
90 to 100	A
80 to 89	B
70 to 79	C
60 to 69	D
0 to 59	F

ATTENDANCE AND MAKE-UP: Students are expected to be on time for class and attend every session. Make-up for examinations is possible with suitable notification and arrangements made through the testing center in the CCC West Campus Testing Center. Make-up issues will be addressed on an individual basis and in accordance with applicable college regulations.

WITHDRAWALS AND INCOMPLETES: These issues will be addressed on an individual basis and in accordance with the applicable college regulations.

EXPECTATIONS: For maximum benefit from this course, it is expected that the student will diligently work approximately two hours outside the classroom for every hour of scheduled classroom time. Maximum benefit is obtained by completing the work in a timely and systematic manner.

ADA - DISCLOSURE OF DISABILITY: Students with disabilities that might affect their performance in this class are encouraged to seek help from the instructor at the beginning of the term. Reasonable accommodations can be made if a disability is known.

ACADEMIC DISHONESTY: Cheating on examinations will not be tolerated. Cheating during an examination will result in a zero on the examination for all parties involved.

CELL PHONES AND PAGERS: Please set these devices for silent operation during class time.

INSTRUCTOR: HOME PHONE:
On Campus Office Office Phone
e-mail:

OFFICE HOURS: Mon: 10:00 AM to 11:00 AM, 12:00 PM to 1:00 PM, Tues: 8:30 AM to 9:00 AM, 10:00 AM to 10:30 AM, 12:00 PM to 12:30 PM; Wed: 8:30 AM to 9:00 AM, 10:00 AM to 11:00 AM, 12:00 PM to 1:00 PM; Thur: 8:30 AM to 9:00 AM, 10:00AM to 10:30 AM, 12:00 PM to 1:00 PM; Fri 10:00 AM to 11:00 AM, 12:00 PM to 1:00 PM. Other hours by appointment only. Please feel free to utilize time after class to ask questions and discuss issues. Also, please feel free to call me at my home phone, at reasonable hours.

TENTATIVE LECTURE SCHEDULE PHYSICS 1210 Spring, 2007

	Date	Lecture Topic	Text Ref.
1	1/12	Course Overview	

	1/15	Martin Luther King Day	
	1/17	Introduction, Measurement, Estimating	Ch. 1
	1/19	Introduction, Measurement, Estimating	Ch. 1
2	1/22	Describing Motion: Kinematics in One Dimension	Ch. 2
	1/24	Describing Motion: Kinematics in One Dimension	Ch. 2
	1/26	Describing Motion: Kinematics in One Dimension	Ch. 2
3	1/29	Describing Motion: Kinematics in One Dimension	Ch. 2
	1/31	Examination 1	Ch.1,2
	2/2	Kinematics in Two Dimensions; Vectors	Ch. 3
4	2/5	Kinematics in Two Dimensions; Vectors	Ch. 3
	2/7	Kinematics in Two Dimensions; Vectors	Ch. 3
	2/9	Dynamics: Newton's Laws of Motion	Ch. 4
5	2/12	Dynamics: Newton's Laws of Motion	Ch. 4
	2/14	Dynamics: Newton's Laws of Motion	Ch. 4
	2/16	Dynamics: Newton's Laws of Motion	Ch. 4
6	2/19	Examination 2	Ch.3,4
	2/21	Circular Motion; Gravitation	Ch. 5
	2/23	Circular Motion; Gravitation	Ch. 5
7	2/26	Circular Motion; Gravitation	Ch. 5
	2/28	Work and Energy	Ch. 6
	3/2	Work and Energy	Ch. 6
8	3/5	Work and Energy	Ch. 6
	3/7	Examination 3	Ch.5,6
	3/9	Linear Momentum	Ch. 7
	3/12, 14, 16	Spring Break	
9	3/19	Linear Momentum	Ch. 7
	3/21	Linear Momentum	Ch. 7
	3/23	Linear Momentum	Ch. 7
10	3/26	Rotational Motion	Ch. 8
	3/28	Rotational Motion	Ch. 8
	3/30	Rotational Motion	Ch. 8
11	4/2	Rotational Motion	Ch. 8
	4/4	Examination 4	Ch.7,8
	4/6	Static Equilibrium; Elasticity and Fracture	Ch. 9

12	4/9	Static Equilibrium; Elasticity and Fracture	Ch. 9
	4/11	Static Equilibrium; Elasticity and Fracture	Ch. 9
	4/13	Fluids	Ch. 10
13	4/16	Fluids	Ch. 10
	4/18	Fluids	Ch. 10
	4/20	Fluids	Ch. 10
14	4/23	Examination 5	Ch.9,10
	4/25	Temperature and Kinetic Theory	Ch. 13
	4/27	Temperature and Kinetic Theory	Ch. 13
15	4/30	Heat	Ch. 14
	5/2	Heat	Ch. 14
	5/4	Heat	Ch. 14
16	5/7	The Laws of Thermodynamics	Ch. 15
	5/9	The Laws of Thermodynamics	Ch. 15
	5/11	Final Examination (11:30 AM to 1:30 PM)	Ch. 13,14, 15

Date	**Laboratory Experiment**
1/12	Introduction
1/15	Martin Luther King Day
1/19 and 1/22	Measurements and Estimating
1/26 and 1/29	Linear Motion
2/2 and 2/5	Vectors
2/9 and 2/12	Atwood Machine
2/16 and 2/19	Friction
2/23 and 2/26	Centripetal Force
3/2 and 3/5	Problem Solving
3/9	Simple Machines
3/12 and 3/16	Spring Break
3/19	Simple Machines
3/23 and 3/26	Linear Momentum
3/30 and 4/2	Rotational Equilibrium
4/6 and 4/9	Young's Modulus

4/13 and 4/16	Archimedes Principle
4/20 and 4/23	Problem Solving
4/27 and 4/30	Temperature
5/4 and 5/7	Specific Heat

LABORATORY GRADING PROCEDURES : Attendance will be taken at each laboratory. A separate grade is not earned by completing only the laboratory portion of the course. Your final laboratory grade will be submitted to your instructor for the lecture portion of the course. The maximum number of points available to the student is 140. The points are earned as follows:

a.) attendance in each lab session	2 points per lab
b.) handing in a lab report for each experiment	2 points per report
c.) additional quality points determined by content of each lab report	6 points maximum

Lab reports are due 1 week after the scheduled completion of the experiment. Lab reports handed in more than 1 week late will be downgraded, prorated for time overdue. However, it is better to hand in a report late than not at all. Lab reports should include, at a minimum, a brief introduction, neatly tabulated data, graphs, sample calculations, error analysis and a brief discussion. The original copy of the data taken in the laboratory should be attached at the end of the report.

Additional Documentation:

OBR Use

Approved-Effective Date	
Pending (i.e. Additional Information Requested)	
Disapproved	
Today's Date	