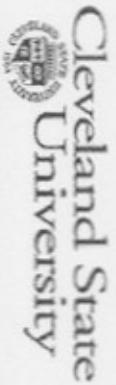


List Of Program Goals

Department or Unit Name: PhysicsIndividual Completing Form: Prof. Paul D. Hamberger (B.S./B.A.), James Lock (M.S.)Date: 12/12/2003, reviewed Nov 2004 - no changes

Program Name:	B.S./B.A. in Physics
Goal # 1:	Know the basic physical concepts and laws of Mechanics, Electromagnetism and Optics, Thermal and Statistical Physics, and Quantum Physics. Be able to apply those concepts and laws to the description of concrete problems. Be able to present, in a coherent manner in written format, an analysis of a scientific topic.
Goal # 2:	Have logical, analytical and computational skills to mathematically model physical problems. Logical skills refer for example to discerning cause from effect. Analytical skills are algebra, geometry, trigonometry, and calculus. Computational skills include programming in at least one language (e.g. FORTRAN, Pascal, C, C++) and use of at least one mathematical package (e.g. Mathematic, Maple).
Goal # 3:	Have laboratory skills to set up an experiment and to acquire and analyze data.
Program Name:	M.S. in Physics
Goal # 1:	Prepare M.S. student for employment as a medical physicist
Goal # 2:	Prepare M.S. students for employment as an optical physicist
Goal # 3:	Upgrade the knowledge of scientists and engineers in the greater Cleveland area in optical measurement techniques
Program Name:	
Goal # :	



Departmental/Unit Self Assessment and Action Plan

Department or Unit Name:

Physics

Completed By:

James Lock

Program Name:

M.S. in Physics

Date:

12/12/2003, rev 11/04/2004

NCA Level 2 Assessment Criteria	Meets Level 2 Criteria? Y or N	Action Steps to get to Level 2	Timeline for Action Steps (see base NCA time chart)	Steps Taken as Scheduled? (Yes/No) If no, explain at bottom
1. Goals : * The Program has specific student learning or student service goals. These goals reflect the discipline or service area professional standards	Yes	Completed. See List of Goals document		Yes
2. Outcomes : * Outcomes that are directly measurable are defined for each goal.	Yes	Completed. See Program Assessment Report document.		Yes
3. Research Completed : * Research is systematically conducted to evaluate success or failure in achieving student learning or service outcomes.	Yes	Student performance files have been kept and updated since the Fall 2001 semester.		Yes
4. Findings : * Research results are analyzed and	Yes	The files have been reviewed by the graduate student		Yes
5. Review Process : * Findings are discussed and reviewed by appropriate groups and individuals; recommendations are made for action.	No	Annual reporting to the Physics Department Graduate and Medical Physics Steering Committees will begin in the Spring 2003 semester.	Spring 2003	Yes
6. Actions : * Recommendations are acted upon.	Yes	Annual Reporting Began in the Spring 2003 semester	Completed	Yes
7. Improvement : * Actions result in documented improvements in student learning or services.	Yes	This continual process of updating the course and research project content has been ongoing since 1983.		Yes
7. Improvement : * Actions result in documented improvements in student learning or services.	Yes	These conferences between the graduate advisor and the graduate students have been held since 1983.		Yes

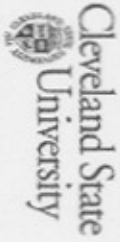
Comments:

Text Only

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Program Assessment Report

Department or Unit

Physics

Completed By:

James Lock

Program Name:

M.S. in Physics

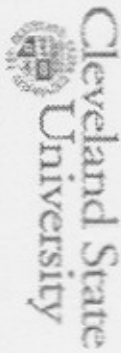
Date:

Nov. 4, 2004

Goal #

1

Outcome Measures	Research Completed	Findings	Review	Actions	Improvements
#1. A student successfully completes the courses in medical physics and related subjects.	A record of the performance of each student on every exam is kept in the student's file maintained by the graduate student faculty	The student's file is reviewed by the graduate advisor on a yearly basis.	The findings are communicated by the graduate advisor to the Physics Department Medical Physics Steering Committee	The content of each course is continually adjusted and updated to reflect new advances in medical physics and related fields.	The graduate advisor confers with the student about his/her progress in achieving the learning outcomes.
#2. A student successfully completes a two-semester practicum experience under	Progress reports and final reports on the practicum experience written by the graduate student are kept in the student's file.	The student's file is reviewed by the graduate advisor.	The findings are communicated by the graduate advisor to the Physics Department Medical Physics Steering Committee.	The practicum experience is continually adjusted and updated to reflect new advances in medical physics.	The practicum mentor confers with the student about his/her success in achieving the learning outcomes.



Program Assessment Report

Department or Unit Name:

Physics

Completed By:

James Lock

Program Name:

M.S. in Physics

Date:

Nov. 4, 2004

Goal #

2

Outcome Measures	Research Completed	Findings	Review	Actions	Improvements
#1. A student successfully completes the courses in optical physics and related subjects.	A record of the performance of each student on every exam is kept in the student's file maintained by the graduate student faculty advisor.	The student's file is reviewed by the graduate advisor on a yearly basis.	The findings are communicated by the graduate advisor to the Physics Department Medical Physics Steering Committee.	The content of each course is continually adjusted and updated to reflect new advances in medical physics and related fields.	The graduate advisor confers with the student about his/her progress in achieving the learning outcomes.
#2. A student successfully completes a one- or two-semester research project in optics or material science under the direction of a faculty member of the CSU physics department.	Progress reports and final reports on the research project written by the graduate student are kept in the student's file.	The student's file is reviewed by the graduate advisor.	The findings are communicated by the graduate advisor to the Physics Department Graduate Committee.	The practicum experience is continually adjusted and updated to reflect new advances in optical physics.	The research mentor confers with the student about his/her success in achieving the learning outcomes.