

\_\_\_\_\_  
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THE COLLEGE OF NEW JERSEY  
ACADEMIC EVALUATION

\_\_\_\_\_  
\_\_\_\_\_

DEGREE REQUIREMENTS (Control Sheet) FOR ..... PHYSICS LIBERAL ARTS-PHYA

**NAME** \_\_\_\_\_ **SS#** \_\_\_\_\_

Retain this sheet to record progress toward your degree. Eligibility for graduation requires:  
1) completion of, or testing out of, courses printed below;

- 2) minimum of 42 s.h. earned at TCNJ excluding credit by exam;
- 3) a minimum total of 128 s.h. excluding Basic Skills courses;
- 4) a cumulative Grade Point Average of 2.0;
- 5) completion of all departmental requirements;
- 6) department may set an additional graduation/exit standard requiring a minimum grade of C- in some or all courses required in the major. See department chairperson.

**A. GENERAL EDUCATION REQUIREMENTS ..... 32 - 51 S.H.**  
(Consult 2003-2004 College Catalog or Course Schedule for acceptable courses)

**I. INTELLECTUAL SKILLS ..... 0 - 19 S.H. \_\_\_\_\_**

**GROUP A: ACADEMIC WRITING ..... 4 S.H.**

\_\_\_\_WRI 102 Academic Writing 4

**GROUP B: MATHEMATICS ..... 0 - 6 S.H.**

\_\_\_\_MATH 127 Calculus I 3 \_\_\_\_MATH 128 Calculus II 3

**GROUP C: FOREIGN LANGUAGES ... (Courses in same language)... 0 - 9 S.H.**

Strongly urged to take during the first year.

\_\_\_\_\_ 3 S.H. \_\_\_\_\_ 3 S.H. \_\_\_\_\_ 3 S.H.

**II. INTERDISCIPLINARY CORE: UNDERSTANDING HUMANITY ..... 6 S.H. \_\_\_\_\_**

A: ATHENS TO NEW YORK \_\_\_\_\_IDSC 151 3

B: SOCIETY, ETHICS, AND TECHNOLOGY \_\_\_\_\_IDSC 252 3

**III. PERSPECTIVES ON THE WORLD ..... 26 S.H. \_\_\_\_\_**

[ DIVERSITY DISTRIBUTION ..... Satisfied in A and B below ] .....

Satisfactory completion of 1) Non-Western, Native American, Third World Culture \_\_\_\_\_, 2) Western Culture \_\_\_\_\_, and 3) Gender Studies \_\_\_\_\_

**GROUP A: NATURAL AND SOCIAL SCIENTIFIC PERSPECTIVES ..... 14 S.H.**

1. NATURAL SCIENCES: (8 S.H.)

\_\_\_\_CHEM 201 Gen. Chemistry I 4 \_\_\_\_CHEM 202 Gen. Chemistry II 4

2. SOCIAL SCIENCES: Completion of one approved "Content" course and one approved "Process" course. (6 S.H.) (C)\_\_\_\_\_ 3 (P)\_\_\_\_\_ 3

**GROUP B: HUMANISTIC AND ARTISTIC PERSPECTIVES ..... 12 S.H.**

1. FINE OR PERFORMING ARTS \_\_\_\_\_ 3 3. LITERATURE \_\_\_\_\_ 3  
2. HISTORY \_\_\_\_\_ 3 4. PHILOSOPHY/RELIGION \_\_\_\_\_ 3

PHYA

NAME \_\_\_\_\_ SS# \_\_\_\_\_

**B. MAJOR REQUIREMENTS..... 58 S.H. \_\_\_\_\_**

- A. Physics Required Courses .....43
- |                                   |    |                                     |    |
|-----------------------------------|----|-------------------------------------|----|
| ___ PHYS 201 General Physics I    | 4  | ___ PHYS 422 Electromag. Theory II  | 3* |
| ___ PHYS 202 General Physics II   | 4  | ___ PHYS 416 Heat & Thermodyn.      | 3* |
| ___ PHYS 421 Electromag Theory I  | 3  | ___ PHYS 426 Particle & Nuclear     | 3* |
| ___ PHYS 321 Modern Physics       | 4  | ___ PHYS 431 Quantum Mechanics      | 3* |
| ___ PHYS 401 Mechanics            | 3* | ___ PHYS 451 Adv. Physics Lab       | 2* |
| ___ PHYS 306 Mathematical Physics | 3  | ___ PHYS 311 Elec. Cir. & Elctrnics | 4  |
| ___ PHYS 411 Optics & Wave Motion | 4  | * Offered in alternate years.       |    |

- B. Physics Options (Select two courses (Required)).....6
- |  |        |
|--|--------|
| ___ MATH 205 Linear Algebra            | 3      |
| ___ MATH 420 Complex Variables         | 3      |
| ___ PHYS 436 Solid State Physics       | 3      |
| ___ PHYS 466 Introductory Astrophysics | 3      |
| ___ PHYS 499 Ind. Study /Phys          | Varies |
| ___ ESME 395 Engineering Analysis      | 3      |

- C. Related Required Courses .....9
- |                                 |   |                                 |   |
|---------------------------------|---|---------------------------------|---|
| ___ CMSC 215 Computer Science I | 3 | ___ MATH 229 Calculus III       | 3 |
|                                 |   | ___ MATH 326 Differential Eqs.  | 3 |
|                                 |   | OR                              |   |
|                                 |   | ___ MATH 386 Diff Eq & Num Tech | 3 |

**C. ELECTIVES AND COLLEGE SEMINAR ..... Minimum 19 S.H. \_\_\_\_\_**

- |   |       |       |       |
|---|-------|-------|-------|
| ___ PHYS 099 Physics Introductory Seminar | 0     |       |       |
| _____                                     | _____ | _____ | _____ |
| _____                                     | _____ | _____ | _____ |
| _____                                     | _____ | _____ | _____ |

EVALUATOR \_\_\_\_\_ DATE \_\_\_\_\_