

Syllabus of Record

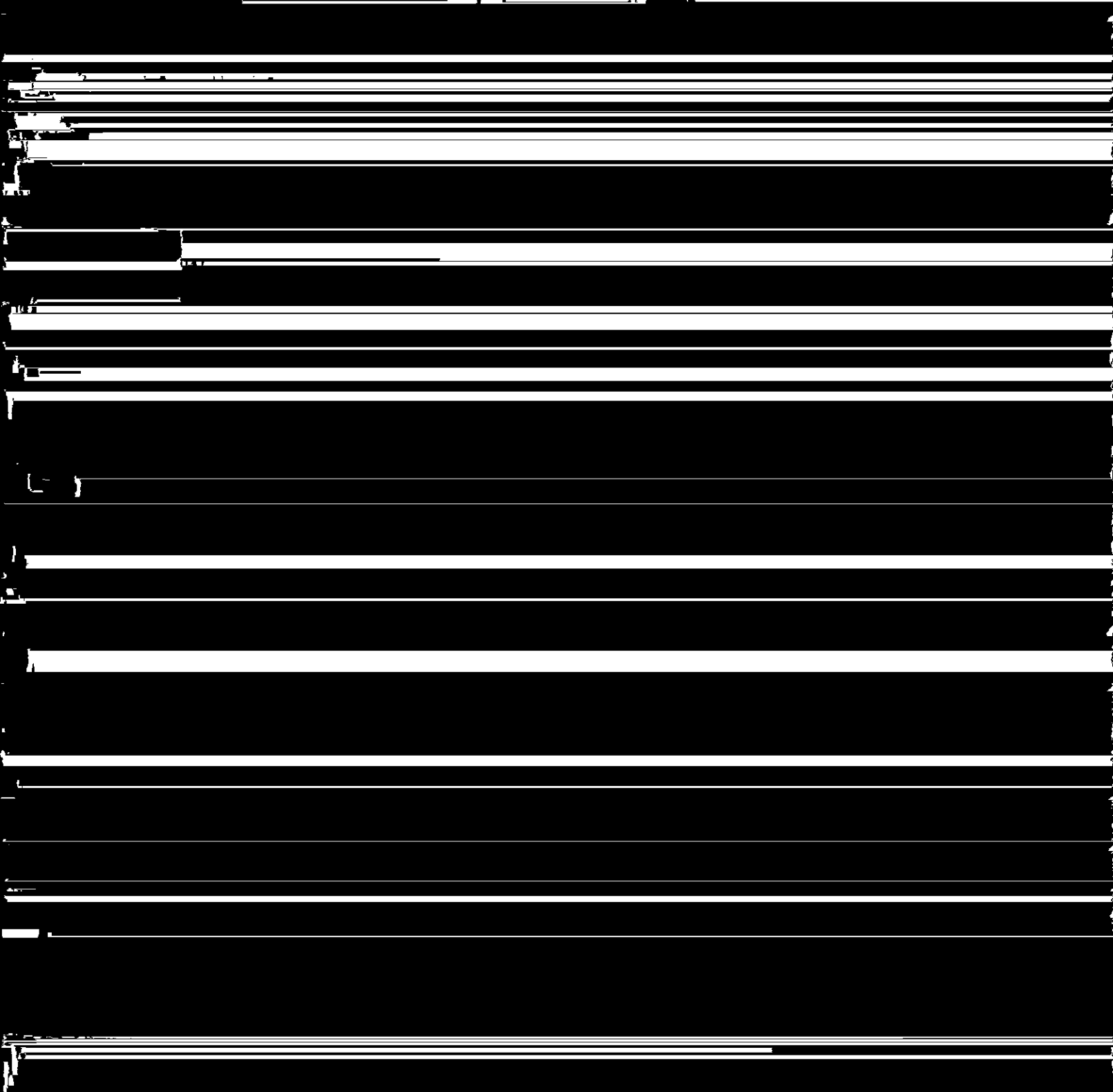
I. CATALOG DESCRIPTION

PHYS 132 Physics II-C Lecture

3c-0l-3cr

Prerequisites: PHYS 131 or equivalent, MATH 122 or 126 at least concurrently

A calculus based course in general college physics utilizing the techniques in problem solving learned in PHYS 131 applied to more advanced topics; topics covered are; Electric Fields, Magnetic Fields



III. COURSE OUTLINE

- A. Electric Fields 4 hours
 - 1. Coulomb's law
 - 2. The electric field
 - 3. Calculating the electric fields of various charge distributions
 - 4. Motion of charged particles in a uniform field
 - 5. Electric flux
 - 6. Gauss' law
 - 7. Applications of Gauss' law
- B. Electric Potential and Capacitance 5 hours
 - 1. Potential difference and electric potential
 - 2. Calculating potential from the field
 - 3. Calculating potential from the charge distribution
 - 4. Calculating field from potential
 - 5. Electric potential energy
 - 6. Calculation of capacitance
 - 7. Energy stored in capacitors
 - 8. Dielectrics
- C. D.C. Circuits 4 hours
 - 1. Electric current
 - 2. Resistance and Ohm's law
 - 3. Energy and power in electric circuits
 - 4. Resistors in series and parallel
 - 5. Kirchhoff's rules
 - 6. Measuring instruments
- D. Magnetic Fields and their Sources 5 hours

2. Mirrors

3. Spherical refracting surfaces

Liberal Studies Course Approval General Information
On a separate sheet of paper, please answer these questions

(Do not include this sheet or copies of the questions in your proposal; submit only the answers)

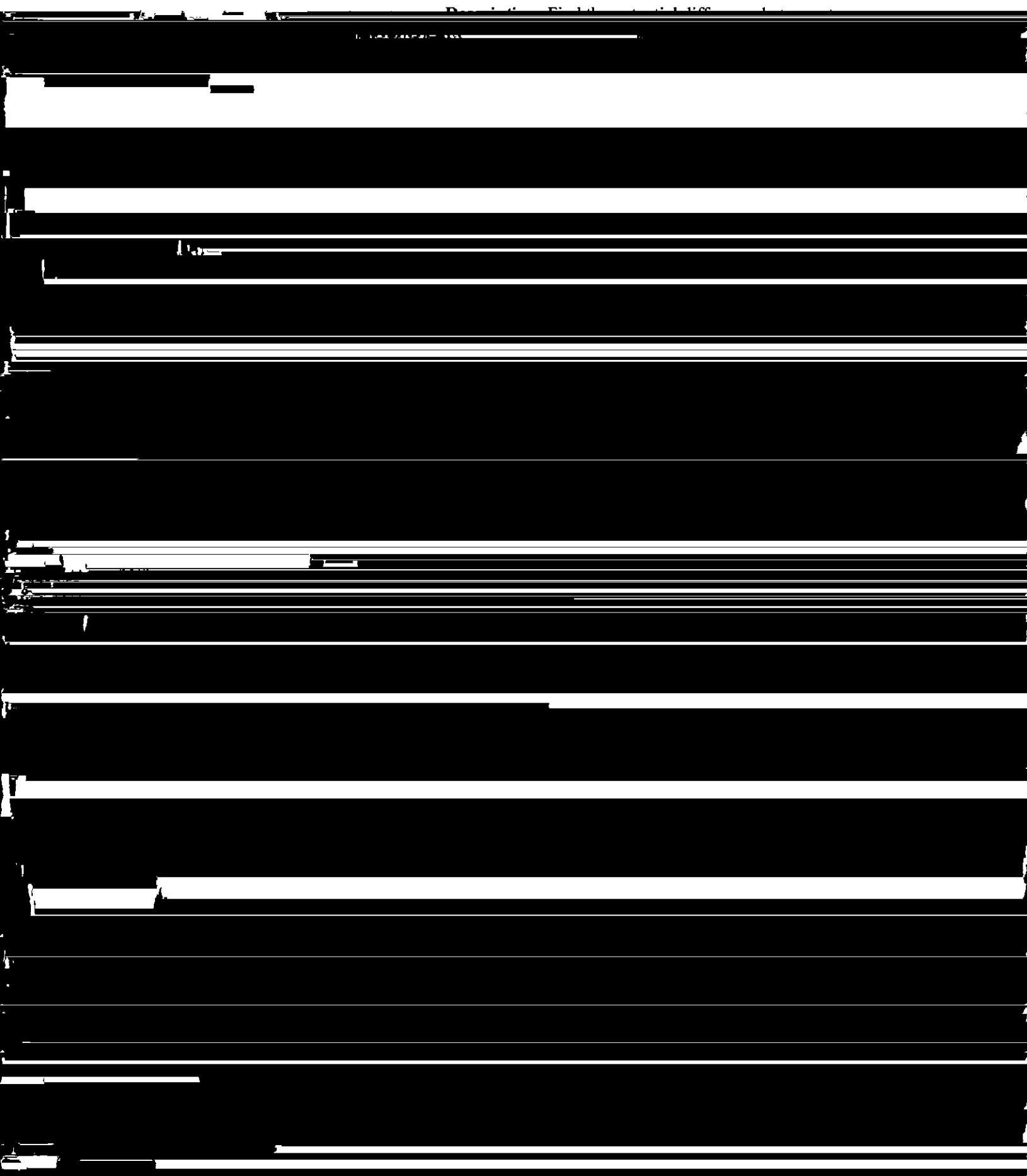
1) There has been only section of this class offered since its inception, and there will continue to be only

Part II SUMMARY OF CHANGE

The primary objectives, topics and course activities are not being significantly changed. The purpose of this course revision is to map the course objectives to the new Liberal Studies Expected Undergraduate

Sample Assignment

Potential Difference and Potential near a Charged Sheet



convenient choice than choosing the potential to be zero far away from the sheet. In this way, the potentials of points near the sheet remain finite. The opposite is true for a point charge.

OLD SYLABUS OF RECORD

Catalog Description:

PHYS 132 Physics II C Lectures

Syllabus of Record

PHYS 132

3 lecture hours

Prerequisites: MATH 122, 126 (At least concurrently)

A calculus based course in general college physics utilizing the techniques in problem solving learned in

PHYS 131, applied to more advanced topics in Electricity, Magnetism, and Optics.

5. Kirchhoff's rules

6. Measuring instruments

D. Magnetic Fields and their Sources

1. Definition and properties of the magnetic field

2. Motion of charged particles in a magnetic field