

KEENE STATE COLLEGE  
BACHELOR OF SCIENCE  
APPLIED COMPUTER SCIENCE

It is the student's responsibility to follow the **official** requirements of the degree, found in the Keene State College catalog. This planning sheet is for advising purposes.

Name: \_\_\_\_\_ Student I.D.#: \_\_\_\_\_  
Institution(s) \_\_\_\_\_  
Attended: \_\_\_\_\_ Credits: \_\_\_\_\_  
\_\_\_\_\_ Update: \_\_\_\_\_

I. **GENERAL EDUCATION**

A. **English Language Competence:** ENG 101 is required of all students.

ENG 101: \_\_\_\_\_

B. **Arts & Humanities:** A minimum of five courses totaling at least 15 credits as follows:

One course in Literature \_\_\_\_\_

Any English course other than Eng 101, 202, 203, 204, 208, 301, 302, 303, 304, 308, 312.  
FR, GER or SP 498 are acceptable when topics focus on French, German or Spanish literature.

HIST\* \_\_\_\_\_ ART, COMM, FILM, MU or TAD \_\_\_\_\_

Two courses from Arts & Humanities disciplines: AMST, ART, COMM, FILM, ENG, FR, GER, HIST, JRN, ML, MU, PHIL, SP, TAD, or an approved interdisciplinary course (WS 201\* or IDAH).

\_\_\_\_\_  
Note: Teacher Certification candidates must take a **US History** course.

C. **Social Sciences:** A minimum of four courses totaling at least 12 credits in **three** or more of the Social Science disciplines: ECON, GEOG, POSC, PSYC, SOC or an approved interdisciplinary course (WS 201\* or IDSS).

\_\_\_\_\_  
Note: Teacher certification candidates must take a **Geography** class.

D. **Sciences/Math:** A minimum of four courses totaling at least 12 credits as follows: One course in BIOLOGY. One course in a PHYSICAL SCIENCE (ASTR, CHEM, GEOL, MET, PHYS).

BIO \_\_\_\_\_ PHYSICAL SCIENCE \_\_\_\_\_

\*\*MATH 120: Intermed. Alg & Trig. \_\_\_\_\_ 3 \*\*\*MATH 141: Intro Statistics \_\_\_\_\_ 3

\*\*MATH 171 may be substituted for teacher certification candidates.

\*\*\*Statistics competency may be fulfilled by completing PSYC 251: Psychological Statistics which will then count toward Social Sciences general education requirements. A science elective must then be taken to complete Sciences/Math general education requirements in place of MATH 141.

\*WS 201 may be used only once, to fulfill either an Arts & Humanities or Social Sciences General Education requirement.

II. **MAJOR REQUIREMENTS** 36 - 51 credits

A. **Programming Core:**

CS 140: Computer Programming I	___ 3	CS 185: Computer Programming II	___ 3
CS 160: PC Hardware Fundamentals*	___ 3	CS 280: Data Structures	___ 3

**Capstone Course**

CS 495: Seminar: Information Systems \_\_\_ 3

B. **Second Language Requirement**

CS : \_\_\_\_\_ \_\_\_ 3 \_\_\_\_\_ (Advisor Sig.)

One CS course in a programming language other than primary language taken in CS 140/185/280 and approved by advisor. Current offerings are: CS 205 (Elementary Visual Basic), CS 220 (COBOL), CS 230 iServer 400 RPG Programming), and CS 265 (Assembly Language). Other courses available on an irregular basis as industry changes. Check with department.

C. **Four CS 300-level courses, not listed above\***

CS : _____ ___ 3	CS : _____ ___ 3
CS : _____ ___ 3	CS : _____ ___ 3

D. **Two CS 400-level courses, not listed above**

CS : _____ ___ 3	CS : _____ ___ 3
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E. **Computer Architecture Requirement:**

CS : \_\_\_\_\_ \_\_\_ 3 \_\_\_\_\_ (Advisor Sig.)

One CS course approved by student's advisor, in a second, non-Windows/NT computer architecture. Currently, this requirement can be satisfied by a course utilizing iServer 400 or UNIX operating systems. This course may satisfy this requirement as well as the above listed requirements simultaneously, or be a separate elective.

F. **Supervised Field Experience Requirement:** 3 credits

Students are required to complete at least 3 credits in supervised field experience. CS 293 and/or CS 493 may be taken for 1 – 3 credits per experience.

\_\_\_\_\_

G. **INTERDISCIPLINARY REQUIREMENTS:** Select one of the following three choices:

1. **Applied Computer Science** 18 credits

a. MATH 120: Intermed Algebra and Trigonometry . \_\_\_ 3

**Note:** Higher level Mathematics courses, including Pre-Calculus & Calculus, are encouraged and may be taken instead of MATH 120.

b. Computer content-related electives from non-CS disciplines: Three elective courses (9 crs) in any one single non-CS discipline with no more than one introductory course, to fit the student's interests and skills in any discipline. Computers are in such wide usage today, they appear in all disciplines.

\_\_\_\_\_ \_\_\_ 3 \_\_\_\_\_ \_\_\_ 3

\_\_\_\_\_ \_\_\_ 3

c. Two advanced courses (6 crs.) in any one discipline approved by CS faculty. These courses may be in the

same or different discipline than the above three electives. Normally, students are advised to take these two courses in the same discipline, and continue with other courses as necessary to receive an academic minor. However, exceptions can be made upon consultation with the academic advisor.

\_\_\_\_\_ 3 \_\_\_\_\_ 3  
 \_\_\_\_\_ Advisor Signature

\*Teacher Certification candidates – see specific requirements on page 3.

2. **DUAL MAJOR:** (variable) Completion of coursework for one of the following teacher certification majors:

- a). Education - Early Childhood Education Option
  - b). Education - Elementary Education Option
  - c). Education - Elementary/Special Education Option
- (Note: Completion of student teaching is not required.)**

3. **TEACHER CERTIFICATION 28 credits**

- a) Programming core: replace CS 160 PC Hardware Fundamentals with CS 161: Microcomputer Systems.
- b) CS 300-level electives must be filled with:
  - CS 305: Computer Usage in Educational Settings
  - CS 390: Methods: Computer Education
  - CS 391: Methods: Field Experience**(CS 390 and 391 must be taken concurrently.)**
- c) Teacher Education courses: Completion of the following teacher education requirements  
**(Note: MATH 171 may be substituted for MATH 120)**

**Orientation**

ESEC 100: Introduction to Teaching \_\_\_\_\_ \_1\_

**Learners**

ESEC 150: Development, Exceptionality & Learning I\* \_\_\_\_\_ \_3\_

ESEC 250: Development, Exceptionality & Learning II\* \_\_\_\_\_ \_3\_

**Settings**

•ESEC 320: Educational Environment/Practices \_\_\_\_\_ \_3\_

**Pedagogy**

•ESEC 387: Creating Social Contexts for Learning \_\_\_\_\_ \_3\_

**Systems**

•ESEC 450: Seminar - Educational Principles\*\* \_\_\_\_\_ \_3\_

**Practice**

•ESEC 465: Student Teaching (elementary) \_\_\_\_\_ \_6\_

ESEC 465: Student Teaching (secondary) \_\_\_\_\_ \_6\_

\* Requires a minimum of one to three hours of field work in the schools or service learning.

\*\*Taken concurrently with Student Teaching

**• Admission to Teacher Education required for these courses.**

Refer to KSC catalog (Teacher Education Programs Section) for guidelines regarding admission to Teacher Education and eligibility for student teaching.

**IV. ELECTIVES:**

Select additional courses of your choice to bring your total number of credits earned to 126.

If you wish to use transferred courses toward major/minor requirements, you must use the course substitution process. Contact the Academic and Career Advising Center for more information.