

STANFORD UNIVERSITY SCHOOL OF ENGINEERING

2005-06

Computer Science

Name: _____
 Local Address: _____
 ID #: _____

Local Phone: _____
 E-mail: _____
 Date B.S. expected: _____

| Dept | No | Title | Total Units | Grade | √ if Trans-fer | Transfer Credit | |
|------|----|-------|-------------|-------|----------------|-----------------|--------------------------|
| | | | | | | Course #/School | Approval Date Initial |

Mathematics (23 units minimum required)

| | | | | | | | | |
|------|-----|-------------------------------------|--------|--|--|--|--|--|
| MATH | 41 | Calculus (see note 1) | 5 | | | | | |
| MATH | 42 | Calculus | 5 | | | | | |
| STAT | 116 | Probability(or MS&E 120 or CME106) | 4 or 5 | | | | | |
| CS | 103 | Discrete Structures (X, or A and B) | 4 or 6 | | | | | |

Plus two electives (see note 2)

| | | | | | | | | |
|--------------------------|--|--|--|---------------------------|--|--|--|--|
| | | | | | | | | |
| <i>Mathematics Total</i> | | | | <i>(23 units minimum)</i> | | | | |

Science (11 units minimum required)

| | | | | | | | | |
|----------------------|----|---------------------------|---|---------------------------|--|--|--|--|
| PHYSICS | 41 | Mechanics | 4 | | | | | |
| PHYSICS | 43 | Electricity and Magnetism | 4 | | | | | |
| | | Elective (see note 3) | | | | | | |
| <i>Science Total</i> | | | | <i>(11 units minimum)</i> | | | | |

Engineering Fundamentals (13 units minimum required)

| | | | | | | | | |
|---------------------------|-----|--------------------------------------|---|---------------------------|--|--|--|--|
| CS | 106 | Programming Abstract (A and B, or X) | 5 | | | | | |
| ENGR | 40 | Introductory Electronics | 5 | | | | | |
| | | Elective (see note 4) | | | | | | |
| <i>Fundamentals Total</i> | | | | <i>(13 units minimum)</i> | | | | |

Technology in Society (1 course required, 3-5 units, see list in School of Engineering Undergraduate Handbook)

| | | | | | | | | |
|-------------------------|--|--|--|--|--|--|--|--|
| | | | | | | | | |
| <i>Totals This Page</i> | | | | | | | | |

NOTES:

- 1 Math 19, 20 and 21 may be taken instead of Math 41 and 42 as long as at least 23 math units are taken.
- 2 The Mathematics electives list consists of: Math 51, 103, 108, 109, 110, 113; CS 156, 157, 205; Phil 151; CME 100, 102, 104. Completion of Math 52 and 53 will (together) count as one Math elective.
 Restrictions: Math 51 and Math 103, or Math 51 and CME 100, or Math 103 and Math 113, or CS 157 and Phil 151, may not be used in combination to satisfy the Math electives requirement.
- 3 The Science elective may be any course of 3 or more units from the SoE Undergraduate Handbook science list, plus Psych 30 or 40. AP Chemistry also meets this requirement. Either of the physics sequences 61/63 or 21/23 may be substituted for 41/43 as long as at least 11 science units are taken.
- 4 One course required, 3 to 5 units. See Engineering Fundamentals list in the SoE Undergraduate Handbook.
- 5 The two systems electives must be chosen from the following set: CS140, 143, 155, 240D, 242 and 244A. The systems electives must include a course with a large software project, currently satisfied by either CS140 or 143.
- 6 The applications elective must be chosen from the following set: CS145, 147, 148, 223A, 223B, 248 or 262.
- 7 CS191 and 191W projects require faculty sponsorship and must be pre-approved. See Claire Stager for details
- 8 Students who take CS103A/B must complete 2 electives; students who opt for CS103X must complete 3. Electives must be at least 3 units each. The list of approved electives is reviewed annually by the Undergrad Program Committee. The list currently consists of CS 140, 143, 145, 147, 148 or 248, 155, 156, 157, 205, 206, 222, 223A, 223B, 224M, 224N, 224S, 225A, 225B, 226, 227, 228, 229, 240, 241, 242, 243, 244A, 244B, 245, 246, 247, 249, 255, 256, 257, 258, 261, 262, 270, 271, 272, 273, 274, 276, 277, 295; CME 108; EE 282; MS&E 430.

Computer Science

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|------|----|-------|-------------|-------|---------------|-----------------|----------|---------|
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| | | | | | | | Date | Initial |

Computer Science Depth (43 units minimum required)

Programming (2 courses)

| | | | | | | | | |
|----|-----|--------------------------------|---|--|--|--|--|--|
| CS | 107 | Programming Paradigms | 5 | | | | | |
| CS | 108 | Object-Oriented Systems Design | 4 | | | | | |

Theory (2 courses)

| | | | | | | | | |
|----|-----|-----------------------------------|---|--|--|--|--|--|
| CS | 154 | Automata and Complexity Theory | 4 | | | | | |
| CS | 161 | Design and Analysis of Algorithms | 4 | | | | | |

Systems (3 courses-see note 5 on the previous page)

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|----|------|--------------------|--------|--|--|--|--|--|
| EE | 108B | Digital Systems II | 3 or 4 | | | | | |
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Applications (2 courses-see note 6 on the previous page)

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|----|--|---|--------|--|--|--|--|--|
| CS | | Artificial Intelligence (CS 121 or 221) | 3 or 4 | | | | | |
| | | | | | | | | |

Project (1 course, 3 units minimum; see note 7 on the previous page)

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|----|--|-------------------------------|--|--|--|--|--|--|
| CS | | CS191, 191W, 194, 294 or 294W | | | | | | |
|----|--|-------------------------------|--|--|--|--|--|--|

Restricted Electives (2-3 courses; see note 8 on the previous page)

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| | | | | | | | | |

Totals from this page
 Totals from previous page
 Program totals

Departmental Approval

Printed Name: _____
 Signature: _____

Date: _____

School of Engineering Approval

Printed Name: _____
 Signature: _____

Date: _____

GENERAL NOTES

- CS 191W, 194, 201 or 294W will fulfill the "Writing in the Major" requirement for students entering Fall 1996 or later.
- This form is available as an Excel file at ughb.stanford.edu. The printed form must be signed by the department representative in Gates room 182. Changes must be initialed in ink.
- Transfer credits in Math, Science, Fundamentals, and TIS must be approved by the Senior Associate Dean for Student Affairs in Terman 201. Transfer credits in Computer Science Depth must be approved by Asst. Chair Margaret Johnson. A maximum of three (3) Computer Science Depth courses may be covered with transfer credit.
- Courses may be listed under only one category.
- All courses listed on this form must be taken for a letter grade if offered by the instructor.
- Minimum Grade Point Average (GPA) for all courses in Engineering Fundamentals and Computer Science Depth (combined) is 2.0.