**University of Hawai‘i at Mānoa**  
**College of Arts & Sciences**  
**Program Sheet 2010-2011**  
**Bachelor of Arts/Science (BA/BS) in Information and Computer Sciences**  
**Admissions: Open Process: Declaration**  
Min. Total Credits: 124 (BA = 98 in core & major + 26 in electives; BS = 116 in core & major + 8 in electives)

### UHM General Education Core Requirements

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* See degree, college and major requirements for courses that can also fulfill these.

### UHM Graduation Requirements

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### Hawaiian / Second Language

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### Credit Minimums

- 124 total applicable
- 30 in residence at UHM

### Grade Point Average

- 2.0 cumulative or higher
- Good academic standing

### Degree Requirements

#### Bachelor of Arts Requirement (Can also fulfill FS)

- MATH 100, 100A, 112, 140, 203, 215, 241, 251A; PHIL 110, 110A, 111; BUS 250; ICS 141; or NREM 203

#### Bachelor of Science Requirements

- MATH 215*FS or 241*FS
- MATH 216 or 242
- DB course
- CHEM 161*DP / 161L*DY
- CHEM 162*DP / 162L*DY
- PHYS 151*DP or 170*DP / 151L*DY or 170L*DY
- PHYS 152*DP or 272*DP / 152L*DY or 272L*DY

### College Requirements

#### A & S Options – Complete at least one option

*BA Courses cannot double count with Gen. Ed. Core*

- **Bachelor of Arts Breadth (3 credit each)**
  - AH
  - LLL
  - NS
  - SS

- **Bachelor of Arts Depth – see list of A & S depts.**
  - Minor
  - Certificate
  - 2nd A & S Major

- **Bachelor of Science**
  - See degree requirements above.

### Credit Minimums

- 104 from A & S disciplines – see list
- 60 nonintroductory

### Credit Maximums

- 8 KRS activity
- 9 Directed Reading / Research
- 12 Practicum / Internship

### A & S Major Requirements

See back for major requirements. Meet regularly with your major advisor.
### Major Requirements for BA or BS in Information and Computer Sciences

**Admission:** Open  
**Application:** NA  
**Min. major credits:** BA = 49; BS = 47  
**Min. B grade in ICS 111 and 211; min. C grade (not C-) in all other courses**

### Requirements

**ICS Core Courses (28 credits)**

- ICS 111 (minimum B grade or higher to advance)  
- ICS 141*FS  
- ICS 211 (minimum B grade or higher to advance)  
- ICS 212  
- ICS 241  
- ICS 311  
- ICS 312  
- ICS 313  
- ICS 321

Courses differ for students pursuing the IT focus.

**BA only (21 credits)**

- ICS 400+  
- ICS 400+  
- ICS 400+

Courses differ for students pursuing the IT or Bioinformatics focus. Students interested in either option are referred to an ICS advisor.

**Four upper-division electives in an area of concentration (12 credits):**

- 300+  
- 300+  
- 300+  
- 300+

A proposal identifying upper-division elective courses and how they form a coherent plan of study must be approved by an ICS advisor.

**BS only (19 credits)**

- ICS 331  
- ICS 400+  
- ICS 400+  
- ICS 400+  
- ICS 400+  
- ICS 400+

### Notes

College of Arts & Sciences, Student Academic Services: QLCSS 113; (808) 956-8755  
Information and Computer Sciences Department: POST 317; (808) 956-7420; icsinfo@hawaii.edu; www.ics.hawaii.edu  
ICS Undergraduate Advisor: Gerald Lau; POST 314A; (808) 956-5428; glau@hawaii.edu