November 6, 2014
Elizabeth L. Bringsjord
Interim Provost and Vice Chancellor
State University of New York
System Administration
State University Plaza
Albany, NY 12246
Dear Dr. Bringsjord,
On behalf of the faculty at the University at Albany, I am pleased to submit a proposal to revise our BS degree in Computer Science and Applied Mathematics. By way of this proposal we seek to change its structure to one that includes concentrations, General and Data Analytics.

This revision has been fully considered and approved through our campus governance system. Should there be a need for additional information or clarification to facilitate processing, please contact Suzanne Freed, Assistant Vice Provost for Undergraduate Education at sfreed@albany.edu.

Thank you for your consideration and assistance.


Interim Senior Vice President for Academic Affairs and Provost
Enclosure
c. Dr. Jeanette Altarriba, Vice Provost and Dean for Undergraduate Education

Dr. Sue Faerman, Dean, College of Computing and Informatics
Dr. Elga Wulfert, Dean, College of Arts and Sciences
Ms. Suzanne Freed, Asst Vice Provost for Undergraduate Education

# Program Revision Proposal: Changes to an Existing Program <br> Corm 3A 

SUNY approval and SED registration are required for many changes to registered programs. To request a change to a registered program leading to an undergraduate degree, a graduate degree, or a certificate that does not involve the creation of a new program, a Chief Executive or Chief Academic Officer must submit a signed cover letter and this completed form to the SUNY Provost at program.review@suny.edu.


Section 2. Requested Changes.

## Section 2.1. Changes in Program Content

a) Check all that apply. Describe each proposed change and why it is proposed.
[ ] Cumulative change from SED's last approval of the registered program of one-third or more of the minimum credits required for the award (e.g., 20 credits for associate degree programs, 40 credits for bachelor's degree programs)
[ ] Changes in a program's focus or design
[ X ]Adding or eliminating one or more options, concentrations or tracks
[ ] Adding or eliminating a requirement for program completion (such as an internship, clinical placement, cooperative education, or other work or field-based experience)
[ ] Altering the liberal arts and science content in a way that changes the degree classification of an undergraduate program, as defined in Section 3.47(c)(1-4) of Regents Rules
b) Provide a side-by-side comparison of all the courses in the existing and proposed revised program that clearly indicates all new or significantly revised courses, and other changes.

| Current BS CSMAT |  | Proposed BS CSMAT |  |
| :--- | :--- | :--- | :--- |
|  |  | Students complete all Core <br> courses plus one of the two <br> concentrations |  |
|  |  |  |  |
| I CSI 201 |  | Core courses |  |
| ICSI 210 | Introduction to <br> Computer Science | I CSI 201 | Introduction to <br> Computer Science |
| ICSI 310 | Discrete Structures | ICSI 210 | Discrete Structures |
|  | Data Structures | ICSI 310 | Data Structures |
| ICSI 333 | Programming at the <br> Hardware Software <br> Interface | Programming at the <br> Hardware Software <br> Interface |  |
| ICSI 403 | Algorithms and Data <br> Structures | ICSI 333 | Algorithms and Data <br> Structures |
|  | Algebra and Calculus II, <br> Calculus 1, Honors Calc <br> 1 | A MAT 111/112/118 | Algebra and Calculus II, <br> Calculus 1, Honors Calc <br> 1 |
| A MAT 111/112/118 | Calculus II /Honors | AMAT 113/119 | Calculus II /Honors |
| AMAT 113/119 | Calculus of Several <br> Variables | AMAT 214 | Calculus of Several <br> Variables |
| AMAT 214 | Linear Algebra | AMAT 220 | Linear Algebra |
| AMAT 220 |  |  |  |
|  |  |  |  |
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a) For each new or significantly revised course, provide a syllabus at the end of this form, and, on the SUNY Faculty Table provide the name, qualifications, and relevant experience of the faculty teaching each new or significantly revised course. NOTE: Syllabi for all courses should be available upon request. Each syllabus should show that all work for credit is college level and of the appropriate rigor. Syllabi generally include a course description, prerequisites and corequisites, the number of
lecture and/or other contact hours per week, credits allocated (consistent with SUNY policy on credit/contact hours), general course requirements, and expected student learning outcomes.

No new courses
b) What are the additional costs of the change, if any? If there are no anticipated costs, explain why.

Recent 2020 hires allow for this version of the major to be offered.

## Section 2.2. Other Changes

Check all that apply. Describe each proposed change and why it is proposed.
[ ] Program title
[ ] Program award
[ ] Mode of delivery
NOTES: (1) If the change in delivery enables students to complete $50 \%$ of more of the program via distance education, submit a Distance Education Format Proposal as part of this proposal.
(2) If the change involves adding an accelerated version of the program that impacts financial aid eligibility or licensure qualification, SED may register the version as a separate program.
[ ] Format change(s) (e.g., from full-time to part-time), based on SED definitions, for the entire program

1) State proposed format(s) and consider the consequences for financial aid
2) Describe availability of courses and any change in faculty, resources, or support services.
[ ] A change in the total number of credits in a certificate or advanced certificate program
[ ] Any change to a registered licensure-qualifying program, or the addition of licensure qualification to an existing program. Exception: Small changes in the required number of credits in a licensurequalifying program that do not involve a course or courses that satisfy one of the required content areas in the profession.

## Section 3. Sample Program Schedule

a) For undergraduate programs, complete the SUNY Undergraduate Sample Program Schedule to show the sequencing and scheduling of courses in the program. If the program has separate tracks or concentrations, complete a Sample Program Schedule for each one.

SUNY Undergraduate Sample Program Schedule

| Campus Name <br> Program/Track <br> Title and Award | University at Albany |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | BS Computer Science and Applied Mathematics , General Concentration |  |  |  |  |
|  | Semest er | Quarte r | $\begin{gathered} \hline \text { Tri } \\ \text { mes } \\ \text { ter } \end{gathered}$ | $\begin{gathered} \hline \mathrm{Ot} \\ \mathrm{he} \\ \mathrm{r} \end{gathered}$ |  |
| Calendar Type | $\mathbf{x}$ |  |  |  |  |
| SUNY Transfer Path Name (if one exists) |  |  |  |  | <----- Use <br> Dropdow n Arrow. |

KEY Course Type: Required (R), Restricted Elective (RE), Free Elective (FE). Course Credits: Number of Credits for individual course (Enter number.) GER Area: SUNY General Education Requirement Area (Enter Area Abbreviation from the drop-down menu.) GER Credits: (Enter number of course credits.) LAS: Liberal Arts \& Sciences Credits (Enter X if course is an LAS course.) Major: Major requirement (Enter X.) TPath: SUNY Transfer Path Major \& Cognate Courses (Enter X.) Elective/Other: Electives or courses other than specified categories (Enter X.) Upper Div: Courses intended primarily for juniors and seniors outside of the major (Enter X.) Upper Div Major: Courses intended primarily for juniors and seniors within the major (Enter X.) New: new course (Enter X.) Co/Prerequisite(s): List co/prerequisite(s) for the noted courses. SUNY GER Area Abbreviations (the first five listed in order of their frequency of being required by SUNY campuses): Basic Communication (BC), Math (M), Natural Sciences (NS), Social Science (SS), Humanities (H), American History (AH), The Arts (AR), Other World Civilizations (OW), Western Civilization (WC), Foreign Language (FL).

## Fall 1:

| Course Number \& Title (\& Type) | Numb er of Credit S | GER <br> Area | $\begin{gathered} \hline \text { GE } \\ \text { Cre } \\ \text { dit } \\ \text { s } \\ \hline \end{gathered}$ | $\begin{aligned} & \mathrm{L} \\ & \mathbf{A} \\ & \mathbf{S} \end{aligned}$ | $\begin{gathered} \mathrm{M} \\ \mathrm{aj} \\ \mathbf{o} \\ \mathbf{r} \end{gathered}$ | Elective/ Other | Up <br> per <br> Div | Uppe <br> r Div <br> Majo <br> r | T <br> P <br> at <br> h | Ne <br> w Cou rse | Co/Pre requisit e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ICSI 201 Introduction to Computer Science - REQ | 4 |  |  | X | X |  |  |  |  |  |  |
| AMAT 112 Calculus 1 - REQ | 4 | M | X | X | X |  |  |  |  |  |  |
| Social Science Gen Ed - RE | 3 | SS | X | X |  |  |  |  |  |  |  |
| Natural Science Gen Ed - RE | 3 | NS | X | X |  |  |  |  |  |  |  |
| Humanities Gen Ed RE | 3 | H | X | X |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 17 | 4 | 13 | 1 | 8 |  |  |  |  |  | (X) |

Spring 1:

| Course Number \& Title (\& Type) | Numb er of Credit S | GER <br> Area | GE <br> Cre <br> dit <br> s | $\begin{aligned} & \mathbf{L} \\ & \mathbf{A} \\ & \mathbf{S} \end{aligned}$ | $\begin{gathered} \mathrm{M} \\ \mathrm{aj} \\ \mathbf{o} \\ \mathbf{r} \end{gathered}$ | Elective/ Other | Up <br> per <br> Div | Uppe <br> r Div <br> Majo <br> r | T <br> P <br> at <br> h | Ne w Cou rse | Co/Pre requisit e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |



Fall 2

| Course Number \& Title (\& Type) | Numb er of Credit s | GER <br> Area | GE <br> Cre <br> dit <br> s | $\begin{aligned} & \mathrm{L} \\ & \mathrm{~A} \\ & \mathrm{~S} \\ & \hline \end{aligned}$ | $\begin{array}{\|c} \hline \mathbf{M} \\ \text { aj } \\ \mathbf{o} \\ \mathbf{r} \\ \hline \end{array}$ | Elective/ Other | Up <br> Div | Uppe <br> r Div <br> Majo <br> r | T P at h | Ne <br> w <br> Cou <br> rse | Co /Pre requisit e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ICSI 210 Discrete <br> Structures- REQ | 4 |  |  | X | X |  |  |  |  |  | $\begin{array}{\|l\|} \hline \text { ICSI } \\ 201 \end{array}$ |
| ICSI 333 <br> Programming at the Hardware Software Interface-REQ | 4 |  |  |  | X |  | X | X |  |  | $\begin{array}{\|l\|} \hline \text { ICSI } \\ 310 \end{array}$ |
| AMAT 214 Calculus III - REQ | 4 |  |  | X | X |  |  |  |  |  | $\begin{aligned} & \text { AMAT } \\ & 113 \end{aligned}$ |
| Foreign Language Gen Ed - RE | 4 | FL | x | X |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 16 | 1 | 4 | 1 | $\begin{aligned} & 1 \\ & 2 \end{aligned}$ |  | 4 | 4 |  |  | (X) |

Spring 2

| Course Number \& Title (\& Type) | Numb er of Credit s | GER <br> Area | $\begin{gathered} \hline \text { GE } \\ \text { Cre } \\ \text { dit } \\ \mathrm{s} \\ \hline \end{gathered}$ | $\begin{aligned} & \mathrm{L} \\ & \mathrm{~A} \\ & \mathrm{~S} \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \mathbf{M} \\ \text { aj } \\ \mathbf{o} \\ \mathbf{r} \end{gathered}$ | Elective/ Other | Up <br> per <br> Div | Uppe r Div Majo r | T P at h | Ne <br> w <br> Cou <br> rse | Co/Pre requisit e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ICSI 311 Principles of Programming Languages - REQ | 3 |  |  | X | X |  | X | X |  |  | $\begin{aligned} & \hline \text { ICSI } \\ & 210, \\ & 310 \end{aligned}$ |
| ICSI 402 Systems Programming - REQ | 3 |  |  |  | X |  | X | X |  |  | $\begin{array}{\|l\|} \hline \text { ICSI } \\ 333 \\ \hline \end{array}$ |
| AMAT 220 Linear <br> Algebra - REQ | 3 |  |  | X | X |  |  |  |  |  | $\begin{aligned} & \text { AMAT } \\ & 113 \\ & \hline \end{aligned}$ |


| International <br> Perspectives Gen Ed - RE | 3 | OW | X | X |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Challenges of the 21st Century - RE | 3 |  |  | X |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Term Totals | 15 | 1 | 3 | 1 | 9 | 6 | 6 | (X) |

Fall 3


|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Term Totals | 15 |  |  |  | 6 | 9 | 6 | 6 |  |  | (X) |
| Fall 4 |  |  |  |  |  |  |  |  |  |  |  |
| Course Number \& Title (\& Type) | Numb er of Credit S | $\begin{aligned} & \text { GER } \\ & \text { Area } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { GE } \\ \text { Cre } \\ \text { dit } \\ \text { s } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \text { L } \\ \text { A } \\ \text { S } \\ \hline \end{array}$ | $\begin{gathered} \hline \mathbf{M} \\ \text { aj } \\ \mathbf{o} \end{gathered}$ | Elective/ Other | $\begin{aligned} & \text { Up } \\ & \text { per } \end{aligned}$ Div | Uppe <br> r Div <br> Majo <br> r | $\begin{gathered} \hline \mathbf{T} \\ \mathbf{P} \\ \text { at } \\ \mathbf{h} \end{gathered}$ | $\begin{gathered} \mathrm{Ne} \\ \mathrm{w} \\ \text { Cou } \\ \text { rse } \end{gathered}$ | Co/Pre requisit e |
| CSI Restricted Elective - RE | 3 |  |  |  | X |  | X | X |  |  |  |
| Mat Restricted Elective - RE | 3 |  |  |  | X |  | X | X |  |  |  |
| Mat Restricted Elective - RE | 3 |  |  |  | X |  | x | X |  |  |  |
| Elective - FE | 3 |  |  |  |  | X |  |  |  |  |  |
| Elective - FE | 3 |  |  |  |  | X |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 15 |  |  |  | 9 | 6 | 9 | 9 |  |  | (X) |
| Spring 4 |  |  |  |  |  |  |  |  |  |  |  |
| Course Number \& Title (\& Type) | Numb er of Credit s | $\begin{aligned} & \text { GER } \\ & \text { Area } \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { GE } \\ \text { Cre } \\ \text { dit } \\ \text { s } \end{array}$ | $\begin{array}{\|l\|} \hline \text { L } \\ \text { A } \\ \text { S } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \mathbf{M} \\ \text { aj } \\ \mathbf{o} \\ \mathbf{r} \\ \hline \end{array}$ | Elective/ Other | $\begin{aligned} & \text { Up } \\ & \text { per } \end{aligned}$ Div | Uppe <br> r Div <br> Majo <br> r | $\begin{gathered} \hline \mathbf{T} \\ \mathbf{P} \\ \text { at } \\ \mathbf{h} \end{gathered}$ | $\begin{gathered} \hline \mathrm{Ne} \\ \mathrm{w} \\ \mathrm{Cou} \\ \text { rse } \end{gathered}$ | Co/Pre requisit e |
| ICSI 404 Computer Organization - REQ | 3 |  |  |  | X |  | X | X |  |  | $\begin{aligned} & \hline \text { ICSI } \\ & 210 \\ & \text { and } \\ & 333 \\ & \hline \end{aligned}$ |
| Mat upper level elective - RE | 3 |  |  |  | X |  | X | X |  |  |  |
| Upper Level Elective RE | 3 |  |  |  |  |  | X |  |  |  |  |
| Elective - FE | 2 |  |  |  |  | X |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 11 |  |  |  | 6 | 3 | 9 | 6 |  |  | (X) |
| Program Total Summary | $\begin{aligned} & \text { Total } \\ & \text { Crits } \end{aligned}$ | $\begin{gathered} \hline \text { SUNY } \\ \text { GER } \\ \text { Areas } \end{gathered}$ | $\begin{array}{\|l\|} \hline \text { SU } \\ \text { NY } \\ \text { GER } \\ \text { Cre } \\ \text { dits } \\ \hline \end{array}$ |  <br> Li <br> be <br> bel <br> ral <br> Ar <br> ts <br>  <br> Sci <br> en <br> en <br> ce <br> s <br> Cr | $\begin{array}{\|l\|l} \hline \mathbf{M} \\ \text { aj } \\ \text { or } \\ \text { Cr } \\ \text { ed } \\ \text { its } \end{array}$ | Elective and Other Credits | $\begin{gathered} \hline \text { Upp } \\ \text { er } \\ \text { Divi } \\ \text { sion } \\ \text { Cre } \\ \text { dits } \end{gathered}$ | $\begin{gathered} \hline \text { Upper } \\ \text { Divisio } \\ n \\ \text { Major } \\ \text { Credit } \\ s \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { To } \\ \text { tal } \\ \text { TP } \\ \text { at } \\ \text { h } \\ \text { Co } \\ \text { ur } \\ \text { se } \\ \text { s } \end{array}$ | $\begin{gathered} \hline \text { New } \\ \text { Cour } \\ \text { ses } \end{gathered}$ |  |


|  |  |  | ed <br> its |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 |  |  |  |  |  |  |  | 6 |
| 120 | 9 | 32 | 3 | 6 | 21 | 46 | 43 |  |



CSI Restricted Elective choices:
ICSI 300 Social, Security, and Privacy Implications of Computing
APHY 353 Microprocessor Applications
APHY 454 Microprocessor Applications Laboratory
APHI 432 Completeness and Decidability
MAT Electives : Any MAT class numbered 300 and above

## SUNY Undergraduate Sample Program Schedule

| Campus Name <br> Program/Track <br> Title and Award | University at Albany |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | BS Computer Science and Applied Mathematics , Data Analytics Concentration |  |  |  |  |
|  | Semest er | Quarte r |  | $\begin{gathered} \text { Ot } \\ \text { he } \\ \text { r } \end{gathered}$ |  |
| Calendar Type | $\mathbf{x}$ |  |  |  | <----- Use <br> Dropdow <br> n Arrow. |
| SUNY Transfer Path Name (if one exists) |  |  |  |  |  |

KEY Course Type: Required (R), Restricted Elective (RE), Free Elective (FE). Course Credits:
Number of Credits for individual course (Enter number.) GER Area: SUNY General Education Requirement Area (Enter Area Abbreviation from the drop-down menu.) GER Credits: (Enter number of course credits.) LAS: Liberal Arts \& Sciences Credits (Enter X if course is an LAS course.) Major: Major requirement (Enter X.) TPath: SUNY Transfer Path Major \& Cognate Courses (Enter X.) Elective/Other: Electives or courses other than specified categories (Enter X.) Upper Div: Courses intended primarily for juniors and seniors outside of the major (Enter X.) Upper Div Major: Courses intended primarily for juniors and seniors within the major (Enter X.) New: new course (Enter X.) Co/Prerequisite(s): List co/prerequisite(s) for the noted courses. SUNY GER Area Abbreviations (the first five listed in order of their frequency of being required by SUNY campuses): Basic Communication (BC), Math (M), Natural Sciences (NS), Social Science (SS), Humanities (H), American History (AH), The Arts (AR), Other World Civilizations (OW), Western Civilization (WC), Foreign Language (FL).

| Fall 1 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course Number \& Title (\& Type) | Numb er of Credit s | GER <br> Area | GE <br> Cre <br> dit <br> s | $\begin{gathered} \mathrm{L} \\ \mathrm{~A} \\ \mathrm{~S} \end{gathered}$ | $\begin{array}{\|c\|} \hline \mathbf{M} \\ \text { aj } \\ \mathbf{o} \\ \mathbf{r} \\ \hline \end{array}$ | Elective/ Other | $\begin{array}{\|l} \hline \text { Up } \\ \text { per } \end{array}$ Div | Uppe r Div Majo r | $\begin{gathered} \hline \mathbf{T} \\ \mathbf{P} \\ \text { at } \\ \mathrm{h} \end{gathered}$ | Ne <br> w <br> Cou rse | Co/Prer equisit |
| ICSI 201 <br> Introduction to Computer Science REQ | 4 |  |  | X | X |  |  |  |  |  |  |
| AMAT 112 Calculus $1 \text { - REQ }$ | 4 | M | X | X | X |  |  |  |  |  |  |
| Social Science Gen Ed - RE | 3 | SS | X | X |  |  |  |  |  |  |  |
| Natural Science Gen Ed - RE | 3 | NS | X | X |  |  |  |  |  |  |  |
| Humanities Gen Ed RE | 3 | H | X | X |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 17 | 4 | 13 | $\begin{aligned} & 1 \\ & 7 \\ & \hline \end{aligned}$ | 8 |  |  |  |  |  | (X) |
| Spring 1 |  |  |  |  |  |  |  |  |  |  |  |
| Course Number \& Title (\& Type) | Numb er of Credit S | GER <br> Area | GE <br> Cre <br> dit <br> s | $\begin{aligned} & \mathrm{L} \\ & \mathrm{~A} \\ & \mathrm{~S} \\ & \hline \end{aligned}$ | $\begin{array}{\|c} \hline \mathbf{M} \\ \text { aj } \\ \mathbf{o} \\ \mathbf{r} \\ \hline \end{array}$ | Elective/ Other | $\begin{aligned} & \text { Up } \\ & \text { per } \end{aligned}$ Div | Uppe <br> r Div <br> Majo $\qquad$ | $\begin{array}{\|c\|} \hline \mathrm{T} \\ \mathrm{P} \\ \text { at } \\ \mathrm{h} \\ \hline \end{array}$ | $\begin{gathered} \hline \mathrm{Ne} \\ \mathrm{w} \\ \mathrm{Cou} \\ \text { rse } \\ \hline \end{gathered}$ | Co/Prer equisit e |
| ICSI 310 Data <br> Structures - REQ | 3 |  |  |  | X |  | X | X |  |  | ICSI 201 |


| AMAT 113 Calculus II - REQ | 4 |  |  | X | X |  |  |  |  |  | $\begin{array}{\|l\|} \hline \text { AMAT } \\ 112 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arts Gen Ed - RE | 3 | AR | X | X |  |  |  |  |  |  |  |
| US Historical Perspectives - RE | 3 | AH | X | X |  |  |  |  |  |  |  |
| UUNI 110 Writing and Critical Inquiry RE | 3 | BC | X | X |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 16 | 3 | 9 | $\begin{aligned} & 1 \\ & 3 \\ & \hline \end{aligned}$ | 7 |  | 3 | 3 |  |  | (X) |
| Fall 2 |  |  |  |  |  |  |  |  |  |  |  |
| Course Number \& Title (\& Type) | Numb er of Credit $s$ | GER <br> Area | $\begin{array}{\|c\|} \hline \text { GE } \\ \text { Cre } \\ \text { dit } \\ \text { s } \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{L} \\ & \mathrm{~A} \\ & \mathrm{~S} \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \mathbf{M} \\ \text { aj } \\ \mathbf{o} \\ \mathbf{r} \end{gathered}$ | Elective/ Other | $\begin{aligned} & \text { Up } \\ & \text { per } \end{aligned}$ Div | Uppe r Div Majo r | $\begin{gathered} \hline \mathbf{T} \\ \mathbf{P} \\ \text { at } \\ \mathrm{h} \end{gathered}$ | Ne <br> w <br> Cou rse | Co/Prer equisit e |
| ICSI 210 Discrete Structures - REQ | 4 |  |  | X | X |  |  |  |  |  | ICSI 201 |
| ICSI 333 <br> Programming at the Hardware Software Interface - REQ | 4 |  |  |  | X |  | X | X |  |  | ICSI 310 |
| AMAT 214 Calculus III - REQ | 4 |  |  | X | X |  |  |  |  |  | $\begin{aligned} & \text { AMAT } \\ & 113 \\ & \hline \end{aligned}$ |
| Foreign Language Gen Ed - RE | 4 | FL | X | X |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 16 | 1 | 4 | $\begin{aligned} & 1 \\ & 2 \end{aligned}$ | $\begin{aligned} & 1 \\ & 2 \end{aligned}$ |  | 4 | 4 |  |  | (X) |
| Spring 2 |  |  |  |  |  |  |  |  |  |  |  |
| Course Number \& Title (\& Type) | Numb er of Credit s | GER <br> Area | $\begin{gathered} \hline \text { GE } \\ \text { Cre } \\ \text { dit } \\ \mathrm{s} \\ \hline \end{gathered}$ | $\begin{aligned} & \mathrm{L} \\ & \mathbf{A} \\ & \mathrm{~S} \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \mathrm{M} \\ \mathrm{aj} \\ \mathrm{o} \\ \mathrm{r} \\ \hline \end{gathered}$ | Elective/ Other | Up <br> per <br> Div | Uppe r Div Majo | $\begin{gathered} \hline \mathrm{T} \\ \mathrm{P} \\ \text { at } \\ \mathrm{h} \\ \hline \end{gathered}$ | Ne w Cou rse | Co /Prer equisit |
| ICSI 402 Systems Programming OR ICSI 418 Software Engineering - REQ | 3 |  |  |  | X |  | x | X |  |  | ICSI 333 |
| AMAT 220 Linear Algebra - REQ | 3 |  |  | X | X |  |  |  |  |  | $\begin{array}{\|l\|} \hline \text { AMAT } \\ 113 \\ \hline \end{array}$ |
| International <br> Perspectives Gen Ed - RE | 3 | OW | X | X |  |  |  |  |  |  |  |


| Challenges of the 21st Century - RE | 3 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Term Totals | 12 | 1 | 3 | 6 | 6 |  | 3 | 3 |  |  | (X) |
| Fall 3 |  |  |  |  |  |  |  |  |  |  |  |
| Course Number \& Title (\& Type) | Numb er of Credit s | GER <br> Area | GE <br> dit <br> s | $\begin{aligned} & \mathrm{L} \\ & \mathrm{~A} \\ & \mathrm{~S} \end{aligned}$ | $\bar{M}$ | Elective/ Other | $\begin{aligned} & \text { Up } \\ & \text { per } \end{aligned}$ Div | Uppe <br> r Div <br> Majo <br> r | $\begin{gathered} \hline \mathbf{T} \\ \mathbf{P} \\ \text { at } \end{gathered}$ | Ne <br> w <br> Cou rse | Co/Prer equisit <br> e |
| ICSI 410 Intoduction to Databases - REQ | 3 |  |  |  | X |  | X | X |  |  |  |
| ICSI 431 Data <br> Mining - REQ | 3 |  |  |  | X |  | X | X |  |  | ICSI 310 |
| AMAT 308 <br> Statistical Inference <br> Or AMAT 362 <br> Probability for <br> Statistics - REQ | 3 |  |  | X | X |  | X | x |  |  | $\begin{aligned} & \text { AMAT } \\ & 214 \end{aligned}$ |
| Gen Ed Elective - RE | 3 |  | X | X |  |  |  |  |  |  |  |
| Elective - FE | 3 |  |  |  |  | X |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 15 |  | 3 | 6 | 9 | 3 | 9 | 9 |  |  | (X) |

Spring 3

| Course Number \& Title (\& Type) | Numb er of Credit <br> s | GER <br> Area | GE Cre dit s | $\begin{aligned} & \mathrm{L} \\ & \mathrm{~A} \\ & \mathrm{~S} \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \mathbf{M} \\ \text { aj } \\ \mathbf{o} \\ \mathbf{r} \\ \hline \end{gathered}$ | Elective/ Other | $\begin{aligned} & \text { Up } \\ & \text { per } \end{aligned}$ Div | Uppe <br> r Div <br> Majo <br> r | $\begin{gathered} \hline \mathbf{T} \\ \mathbf{P} \\ \text { at } \\ \mathrm{h} \\ \hline \end{gathered}$ | Ne w Cou rse | Co/Prer equisit <br> e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AMAT 363 Statistics or AMAT 367 <br> Discrete Probability - REQ | 3 |  |  | X | X |  | X | X |  |  | AMAT3 <br> 62 or <br> AMAT <br> $113+6$ <br> cr |
| CSI/MAT/Science Restricted Elective RE | 3 |  |  |  | X |  | X | X |  |  |  |
| ICSI 403 | 3 |  |  |  | X |  | X | X |  |  | $\begin{aligned} & \text { ICSI } \\ & 210, \\ & 310 \end{aligned}$ |
| Elective - FE | 3 |  |  |  |  | X |  |  |  |  |  |
| Elective - FE | 3 |  |  |  |  | X |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 15 |  |  | 3 | 9 | 6 | 9 | 9 |  |  | (X) |

Fall 4

| Course Number \& Title (\& Type) | Numb er of Credit <br> S | GER <br> Area | GE <br> Cre <br> dit <br> S | L A S | $\begin{gathered} \mathrm{M} \\ \mathrm{aj} \\ \mathbf{o} \\ \mathbf{r} \\ \hline \end{gathered}$ | Elective/ Other | Up <br> per <br> Div | Uppe <br> r Div <br> Majo <br> r | $\begin{gathered} \mathrm{T} \\ \mathbf{P} \\ \text { at } \\ \mathrm{h} \end{gathered}$ | Ne <br> w <br> Cou <br> rse | Co/Prer equisit e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CSI/MAT/Science Restricted Elective RE | 3 |  |  |  | X |  | X | X |  |  |  |
| AMAT 465 Applied <br> Statistics - REQ | 3 |  |  | X | X |  | X | X |  |  | AMAT <br> 220 + <br> MAT <br> 308 or <br> 363 |
| ICSI 451 Bayesian Data Analysis and Signal Processing REQ | 3 |  |  |  | X |  | X | X |  |  | AMAT <br> 214 and <br> ICSI 201 |
| Elective - FE | 3 |  |  |  |  | X |  |  |  |  |  |
| Elective - FE | 3 |  |  |  |  | X |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 15 |  |  | 3 | 9 | 6 | 9 | 9 |  |  | (X) |

Spring 4

| Course Number \& Title (\& Type) | Numb er of Credit s | GER <br> Area | GE <br> Cre <br> dit <br> s | $\begin{aligned} & \mathrm{L} \\ & \mathbf{A} \\ & \mathbf{S} \end{aligned}$ | $\mathrm{M}$ aj $0$ r | Elective/ Other | Up <br> per <br> Div | Uppe r Div Majo r | $\begin{gathered} \mathrm{T} \\ \mathbf{P} \\ \text { at } \\ \mathrm{h} \end{gathered}$ | Ne <br> w Cou rse | Co/Prer equisit e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ICSI 490 Internship in Computer Science - REQ | 3 |  |  |  | X |  | X | X |  |  | $\begin{aligned} & \text { ICSI } 310 \\ & + \\ & \text { permiss } \\ & \text { ion } \end{aligned}$ |
| AMAT 464 Applied Stochastic Processes - REQ | 3 |  |  | X | X |  | X | X |  |  | AMAT 362 or 367 |
| Elective - FE | 3 |  |  |  |  | X |  |  |  |  |  |
| Upper level Elective $-\mathrm{RE}$ | 3 |  |  |  |  |  | X |  |  |  |  |
| Elective - FE | 2 |  |  |  |  | X |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Term Totals | 14 |  |  | 3 | 6 | 5 | 9 | 6 |  |  | (X) |

Program Total
Summary

| Total | SUNY | SUN | Lib | M | Elective | Upp | Upper | To | New |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Credits | GER | Y | er | aj | and Other | er | Divisio | tal | Cour |
|  | Areas | GER | al | or | Credits | Divi | n | TP | ses |
|  |  | Cre | Ar | Cr |  |  |  |  |  |
| sion | Major | at |  |  |  |  |  |  |  |


|  |  | dits | ts <br>  <br> Sci <br> en <br> ce <br> s <br> Cr <br> ed <br> its | $\begin{aligned} & \hline \text { ed } \\ & \text { its } \end{aligned}$ |  | Cre dits | Credits | $\begin{gathered} \hline \text { h } \\ \text { Co } \\ \text { ur } \\ \text { se } \\ \text { s } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 120 | 9 | 32 | $\begin{aligned} & 6 \\ & 3 \end{aligned}$ |  | 20 | 46 | 43 |  |  |

GER Area
Summary

| Basic <br> Communica tion (BC) | 1 | The Arts (AR) | 1 |
| :---: | :---: | :---: | :---: |
| Math emati cs (M) | 1 | American History (AH) | 1 |
| Natural Sciences (NS) | 1 | Western Civilization (WC) |  |
| Social Sciences (SS) | 1 | Other World Civilizations (OW) | 1 |
| Huma nities $(\mathrm{H})$ | 1 | Foreign <br> Language (FL) | 1 |

## CSI/MAT/Science Electives:

ICSI courses numbered 300-470 or 500-550
AMAT courses numbered 300 or above
Science courses specifically approved by the Computer Science and Mathematics departments

## Section 4. SUNY Faculty Table

a) If applicable, provide information on faculty members who will be teaching new or significantly revised courses in the program. Expand the table as needed.
b) Append at the end of this document position descriptions or announcements for each to-be-hired faculty member


| (a) | (b) | (c) | (d) | (e) | (f) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Faculty Member Name and Title/Rank (Include and identify Program Director with an asterisk.) | \% of <br> Time <br> Dedic <br> ated <br> to <br> This <br> Progr <br> am | Program Courses Which May Be Taught (Number and Title) | Highest and Other <br> Applicable Earned Degrees (include College or University) | Discipline(s ) of Highest and Other Applicable Earned Degrees | Additional Qualifications: List related certifications, licenses and professional experience in field. |
| TBH2, etc., and provide title/rank and expected hiring date.) |  |  |  |  |  |
|  |  |  |  |  |  |
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## External Instruction Form <br> Form 2E

This form is required when external instruction is part of the degree requirements in an academic program. External instruction includes internships, field work, clinical placements, cooperative education, service learning, and the like, which are offered in cooperation with external partners, such as business and industry, health care facilities, public agencies, or schools.

1. Use the table below (expanded as necessary) to summarize proposed arrangements for required external instruction in an academic program. List all proposed arrangements. The number of placements listed below should equal or exceed the number of students expected to be in the initial cohort of a new program.

| Name and Title of Contact Person | Name and Address of Placement Site | Number(s) of <br> placements per <br> year |
| :--- | :--- | :--- |
| Vijaya Kokkili, Quality Assurance <br> Manager | Commerce Hub, 255 Fuller Road, Suite <br> 327, Albany, NY 12203 | 2 |
| Todd Alhart, Media Relations <br> Manager | GE Global Research, 1 Research Circle, <br> Niskayuna, NY 12309 | 2 |
| Brian Suedkamp, Associate Employer <br> Services Representative for the <br> Capital Region | NYS Department of Labor, W.A. Harriman <br> State Office Campus, Building 12, Room <br> 169, Albany, NY 12240 | 2 |
| Valerie Grey, Executive Deputy <br> Commissioner | NYS Education Department, Office of <br> Cultural Education, Empire State Plaza, <br> Albany, NY 12230 | 2 |
| Emil Slane, Deputy Commissioner <br> and CFO | NYS Office of Mental Health, 44 Holland <br> Avenue, Albany, NY 12229 | 2 |

2. For clinical placements for programs leading to professional licensure in a health profession, append documentation to demonstrate each site's commitment to a numerical range of students each year, and the time period of its commitment. The documentation should be signed by the responsible official at each proposed clinical site.
3. In the table below, list the individual(s) at the campus (or at each campus, in the case of multiinstitution programs) who will have responsibility for oversight and administration of external instruction.

| Name | Title | Email Address |
| :--- | :--- | :--- |
| Seth Chaiken | Associate Professor | schaiken@albany.edu |
|  |  |  |
|  |  |  |

