Department of Computer Science

ERIK JONSSON SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

Monday, July 19th, 2021

THE ORIENTATION BEGINS AT 8:30AM DALLAS, TX time
PLEASE MUTE YOUR MICROPHONES
Agenda for Today

- Introduction – Shyam Karrah (Director of Graduate Student Services CS Dept)
- Welcome Note – Introduction by Dr. Ovidiu Daescu – Interim Department Head
- CS Department Overview – Dr. Ovidiu Daescu
- Graduate Advisors Computer Science Program – Shyam Karrah
- MS CS/SE Degree Planning
- Areas of Study (Track)
  - Traditional Computer Science
  - Networks and Telecommunications
  - Intelligent Systems
  - Cyber Security
  - Systems
  - Data Science
  - Interactive Computing
- MS in Software Engineering Program
- GCS
- Q&A !!!
Dr. Stephanie Adams  
Dean, Jonsson School of Engineering and Computer Science

Dr. Ovidiu Daescu  
Interim Department Head  
Computer Science

Dr. Juan E. González  
Dean of Graduate Education
Computer Science Department

Dr. Jorge Cobb
Director of PhD Studies
ECS and CS at UT Dallas

• UT Dallas
  – Founded in 1969 (celebrated 50th Anniversary)
  – 28,000+ students: CS the largest department with ~ 4,600 students.
  – https://www.utdallas.edu/about-us/

• CS @ UT Dallas
  – 1970s: Program founded as part of math sciences
  – 1986: Erik Jonsson School founded with CS + EE
  – Upper division BS CS started late 80s; Lower division in early 90s
  – Rapid growth in MS population in last decades
  – Significant growth in faculty and PhD population in the 2000s
  – Brand: producer of graduates with deep tech knowledge
Computer Science at UTD

- One of the largest departments in the country (3rd largest)
  and, also one of the best
- Fall 2020 student population ~4,600 students (3,600 BS, 800 MS, 160 PhD)
- 51 T/T faculty, 40+ Faculty of Instruction, 20+ part-time lecturers
- BS, MS, PhD degrees offered in CS, SE, Data Science
- ~300 course-sections offered each semester (wide variety)
- ~1000 students graduate each year (more than 1% of US output of CS graduates)
- World renowned CS faculty: publish in top conferences & journals
- ~$9 Million in annual research expenditures (37th in USA)
- 21st in LinkedIn ranking; #44 in USNWR global rank; #5 in UG AI (Best Value Colleges)
- 2019 csrankings.org: #5 SE, #6 in NLP, #7 AI
#21 Nationally in LinkedIn Ranking

Rice University
Houston, Texas Area
35,300 students & alumni on LinkedIn
See more

University of Pennsylvania
Greater Philadelphia Area
125,200 students & alumni on LinkedIn
See more

University of Arizona
Tucson, Arizona Area
161,400 students & alumni on LinkedIn
See more

Harvey Mudd College
Greater Los Angeles Area
5,900 students & alumni on LinkedIn
See more

The University of Texas at Dallas
Dallas/Fort Worth Area
61,400 students & alumni on LinkedIn
See more
Ranked #6 in NLP + AI (2009-2019)
Ranked #5 in Software Engineering (2009-2019)
Ranked #41 overall (2019-2020)

Ranked #24 in Top Colleges Providing Cyber Security Programs

#5 in the nation for Undergraduate Education in AI (Best Value Colleges)
Just behind MIT, CMU, UC Berkeley, Georgia Tech
BS SE ranked #9 in the country by “Best Computer Science Schools”
Excellence in Research

• Wide variety of research areas covered:
  - Cyber Security
  - Computer Systems
  - Software Engineering
  - Intelligent Systems
  - Computer Science Theory
  - Computer Networking
  - Data Science

• Strategic areas of focus:
  - Machine Learning/AI, Data Sci., Cyber Sec., SW Engg, IoT & Software Defined Network (SDN)

• Focus on Interdisciplinary/Multidisciplinary research
  - Computer Systems: Medicine, Rehabilitation, Image Proc., Art & Tech.
  - Cyber Security: Mgmt and Math Sci (risk management), political sci.
  - Intelligent Systems: Medicine, Speech processing
CS Accomplishments

• 13+ CS faculty members hold the prestigious NSF CAREER award
• Numerous best paper awards & academic honors (many test-of-time awards as well):
  – Dr. Bhavani Thuraisingham, Fellow of the ACM and Fellow of NAI
  – Dr. Zygmunt Haas, Fellow of two European Societies
  – Dr. Kevin Hamlen set the Spaceflight Simulation Game world record
  – Dr. Murat Kantarcioglu, Fellow AAAS

• CS faculty are excellent teachers: they have won many awards

• Diverse student body:
  – #11 nationally in number of women students
  – #11 nationally in number of Hispanic students
  – #14 nationally in number of African American students
CS Department: Centers & Institutes

- Cyber Security Education & Research Institute (CSERI)  
  (Director: Dr. Thuraisingham)
- Human Language Technology Institute (HLTRI)  
  (Director: Dr. Sanda Harabagiu)
- Inst. for Interactive & Spatial Computing (UT DIISC)  
  (Director: Dr. B. Prabhakaran)
- Institute for Data Analytics (IDA)  
  (Director: Mr. Bao Tran)
- Net-centric Software Center  
  (Director: Dr. Farokh Bastani)
- Center for Software Testing  
  (Director: Dr. Eric Wong)
- h-STIP: Center for Software Technologies to Improve Performance  
  (Director: Dr. Ovidiu Daescu)
- Center for Machine Learning Research  
  (Director: Dr. Sriraam Natarajan)
- Applied AI Research Center  
  (Director: Doug DeGroot)
- Center for CS Education and Outreach  
  (Director: Dr. Jey Veerasamy)
Opportunities for CS/SE Graduates

Many of these jobs are right here in DFW!

Opportunities for CS/SE Graduates

Annual jobs available vs. degrees granted

- Computer Science
- Engineering
- Life Sciences (incl. agricultural)
- Social Sciences (incl. psychology)
- Physical Sciences (incl. environmental)
- Mathematical Sciences

BLS job projection data: http://www.bls.gov/emp/ind-occ-matrix/occupation.xlsx
S&E Indicators degree data: http://www.nsf.gov/statistics/2016/nsb20161/uploads/1/12/at02-01.xlsx
Opportunities for CS/SE Graduates

• From a manufacturing economy to an information economy
• More things become automated, more and more software engineers needed
• With the Web and Mobile Apps becoming more pervasive, more people needed to develop them
• AI, Machine Learning, Blockchain, IoT: new technologies gaining popularity
• This automation and pervasiveness of computing will continue to increase:

THE FUTURE FOR CS/SE IS BRIGHT

Great salaries: BS: $70K-$120K, MS: $80K-$150K, PhD: $90K-$200+K
“… the software industry is going to make more breakthroughs in these next 10 years than it's made in the last 30 … software is really going to transform not just what we think about as the computer industry, but the way that everything is done …”
Contacting the ISSO

Schedule an Appointment
Select an appointment type and select an available time slot to meet your advisor.
Appointments are available up to a week in advance.

Send a Message in iComet
The ISSO offers advising services online through iComet. You can send a message to an advisor and receive a response through your iComet Portal.

Contact the ISSO
At ISSOProspective@utdallas.edu for advising services

Call ISSO
For general information, call the ISSO at 972-883-4189 between 9 a.m. and 3 p.m. The ISSO staff answering our phone lines are not immigration advisors.
GRADUATE DEGREE PLANNING SEMINAR
Fall 2021

Department of Computer Science
Erik Jonsson School of Engineering and Computer Science

The University of Texas at Dallas
Orientation/Degree Planning Seminar Overview

• Master of Science Degree Planning – Shyam Karrah
• Graduate Advisors Computer Science Program
• Areas of Study (Track)
  - Traditional Computer Science
  - Networks and Telecommunications
  - Intelligent Systems
  - Cyber Security
  - Systems
  - Data Science
  - Interactive Computing
  - MS in Software Engineering
• Annual Graduate Degree Planning Form submission
• Registration
Graduate Advisors

Prof. Shyam Karrah

Prof. Pushpa Kumar

Prof. Laurie Thompson

Prof. Tim Farage
COMPUTER SCIENCE DEPARTMENT
GRADUATE ADVISORS

Prof. Laurie Thompson  ECSS 3.701  972.883.6326  lthomp@utdallas.edu
MS (not Thesis) last names A – K

Prof. Pushpa Kumar  ECSS 4.407  972.883.6904  pkumar@utdallas.edu
MS (not Thesis) last names L – P

Prof. Tim Farage  ECSS 3.609  972.883.4836  tfarage@utdallas.edu
MS (not Thesis) last names Q – Z

Prof. Shyam Karrah  ECSS 3.907  972.883.4197  skarrah@utdallas.edu
All PhD  All MS - Thesis, and IA and SE Tracks  All MS-Fast Track
INSIDE the SUITE 3.908

Mrs. Emily Lenart-Donaldson  ECSS 3.905  972-883-4278  eldonaldson@utdallas.edu
CS_MSCS A-J (Not IA track, Not Thesis)

Ms. Rachel Spataro  ECSS 3.906  972-883-4194  rachel.spataro@utdallas.edu
CS_MSCS K-P (Not IA track, Not Thesis) ; all SE_MS (Not Thesis or PhD Masters)

Mr. Eric Moden  ECSS 3.904  972-883-4705  eric.moden@utdallas.edu
CS_MSCS Q-T; All IA track students (Except PhD Masters and Thesis MS)

Mr. Jesus Mata  ECSS 3.902  972-883-6175  Jesus.Mata@utdallas.edu
CS_MSCS U-Z (Not IA track, Not Thesis)

Mr. Doug Hyde  ECSS 3.908B  972-883-6612  dhyde@utdallas.edu
All PhD;  All PhD with Masters;  All MS with a Thesis (all tracks)

Mrs. Nirmala Manalan  ECSS 3.903  972-883-4216  Nirmala.Manalan@utdallas.edu
Admission Processor

The staff members are NOT Graduate ADVISORS. For any questions on classes, choosing a degree plan.. etc, contact your Graduate Advisor.
Early registration for spring semester takes place in November and for the summer & fall starts in April; enrollment appointments are placed on your Orion account based on earned hours, and it is randomized. It’s your responsibility to check out the schedule online and register for classes online.

If you know the courses you wish to take and no levelling courses to take or holds on your account, you may Enroll online and can also contact the appropriate staff member for help with registration. They can also answer some of your general questions regarding course schedules, give out transfer/waiver forms, help with your graduation application or schedule appointments with a graduate advisor.

**Students are strongly recommended NOT to register in more than TWO CORE COURSES from any degree plan.**
Department of Computer Science  Graduate Degrees

- Master of Science in Computer Science (33 credit hours)
  - Traditional Computer Science
  - Networking and Telecommunications
  - Intelligent systems
  - Cyber Security
  - Systems track
  - Data Science
  - Interactive Computing

- Master of Science in Software Engineering (33 credit hours)

- Doctor of Philosophy (75 credit hours beyond B.S. degree) in
  - Computer Science
  - Software Engineering

- Offered jointly by CS and EE Departments
  - Computer Engineering & Telecommunications Engineering
Master of Science Degree Plan

Department of Computer Science MS Requirements

- Five Core Courses from one of the tracks
- Six approved electives; at least five must be at 6000 or higher level and one approved elective can be a 5000* or a 6000 level course.
- *(If a student chooses one of the 5000 level courses, then only one of the CS 5333 or CS 5343 or CS 5348 can be counted as an elective in all degree plans. Students should consult their graduate advisors to get approval for the 5000 level course)

- All requirements including transfer credit must be completed in a six year window.

- GPA requirements:
  - Core GPA ≥ 3.19
  - Elective GPA ≥ 3.00
  - Overall GPA ≥ 3.00
Master of Science Degree Plan

- If core GPA is above 3.00 but below 3.19, a seventh elective is required in the degree plan.
- If core or elective GPA is below 3.00, one or more courses must be repeated. Any course can be repeated only once and a maximum of three courses can be repeated in a degree plan.
- If a student repeats a course, the new grade will replace the earlier grade; both will appear in the transcript.
- Please check the graduate catalog for all other policies and procedures.

http://catalog.utdallas.edu/2021/graduate/home
Master of Science Degree Plan

Fast Track Students:

- Courses Taken as Option A (Undergrad only) cannot be applied to your Masters program.

- Courses Taken as Option B (Fast Track) or C (Grad only)
  - Are ALL treated as Transfer Credits*
  - All course grades in Option B or C WILL affect your GPA*

Fast Track Admits will have:

- assigned Advisors and MS DPEs by last name alpha, Track and/or Thesis option.

*Subject to new university policies
Dear

Congratulations on your admission to the University of Texas at Dallas. The UT Dallas Committee on Graduate Studies congratulates you on your admission to the graduate program in Computer Science for the Fall 2008 semester. We share your excitement as you begin this new stage in your education.

At UT Dallas, we promise you a welcoming environment, intellectual challenges, great faculty in your field of study, and a diverse and stimulating University family.

Please note that all required supporting documents must be received before you will be able to register for classes. You must contact the program to which you have been admitted, as each program has additional conditions that must be met before you can register. For contact information, please visit http://utdallas.edu/enroll/graduateadvisors.

We want to ensure that as a newly admitted student you are aware of the next steps you should complete to prepare for your enrollment at UT Dallas. For help with this process and to confirm your intention to enroll visit http://www.utdallas.edu/enroll/graduateadmissions. Should you need to defer your admission for any reason please contact the Associate Dean for the program to which you were admitted.

Your foreign tuition status has been determined based on the information that you provided on your admission application. If you have any questions regarding your residency status, please contact the program to which you have been admitted for more information.

The graduate experience at UT Dallas is unique and exceptional. Our faculty and staff look forward to welcoming you to campus.

Sincerely,

Dean of the Erik Jonsson School of Engineering and Computer Science

To contact the School of Engineering and Computer Science, please call 972-883-2074. You may also find important information on our web site at http://www.eng.utdallas.edu.

cc: file: ECE CS F
Admission Requirements

- Your official admissions letter may state any required levelling courses recommended by the admissions committee.

- In case you have not seen your levelling courses assigned to you or missed it in your emails, contact a staff member.

- You are responsible for any levelling course required for your Degree Plan (track) and also for any course you choose.
Admission Requirements

- Students from Non CS/Related backgrounds **MUST** complete the following **MINIMUM** levelling courses:
  - CS5303 (Computer Programming)
  - CS 5330 (CS 2340) (Computer Architecture)
  - CS 5333 (Discrete Structures),
  - CS 5343 (Data Structures & Algorithm Analysis) and
  - CS 5348 (Operating Systems).

- You must **COMPLETE** your assigned 5000 level courses applicable to your degree plan in the first year of study.
If a 5000 level course is not offered, or if you have a scheduling conflict, a graduate advisor may approve the undergraduate equivalent course.

- *The undergraduate course grade is not computed towards your graduate GPA.

Supported students must take 9 graduate hours.

All levelling courses in your degree plan must be completed at the time of CPT assignment.
If you are choosing CS (Eric) or SE (Rachel) degree plan, you must complete the required core and elective courses in the first three semesters. Otherwise, you may not graduate on time.

These two degree plans require some careful planning and selection of courses each semester.

A general recommendation for all the students is to complete the core courses in your track in the first three semesters.

Do not leave any core course to be completed in the graduating semester and specially summer semester.
Students planning to pursue PhD program in the near future should enroll in the QE sections and sign up for the Qualifying exam to strengthen their application.

PhD students should enroll in QE sections of the core courses even if the QE sequence is completed.

Department awards Certificate of excellence in academics to those students who maintain 3.9* or higher GPA.

*may change depending on the semester
Grading System

• Letter grades A, A-, B+, B, B-, C+, C and F are used in grading graduate courses.

• GPA representation for the grades are as follows;

<table>
<thead>
<tr>
<th>Grade</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.67*</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
</tbody>
</table>

* Please note B- is less than 3.00
• All Important deadlines and dates are kept current in the Academic Calendar online.
  – It is important that you review and know these dates (each semester):
    • Enrollment
    • Payment
    • Final Defense
    • Graduation
  • The dates update constantly.
  • Confirm the date ONLINE not on paper.
Enrolling, Dropping or Swapping

- The Last day to add/Swap Courses is August 30th.

- **DO NOT** drop classes online.

- For any Add, Drop or Swap please meet with a CSGS Advisor.
Sample Academic

Official Academic Calendar Fall 2021

Note: All offices are closed on Saturdays and Sundays. All transactions must occur online. All email correspondence will be sent to UTD email address.

Classes begin
Full-term session: Monday, August 23
1st 5-week session: Monday, August 23
2nd 5-week session: Monday, August 23

Well Registration
Enrollment appointments available online: Monday, March 29
Students are required to select their semester appointments and course details in MyUTD for the date and time they can begin registering.

Schedule Available for: Monday, March 29
Online add/drop ends: Monday, August 30

Last Day for Re-admission/Re-entry: Friday, August 13

Last Enrollment from WallBall: Thursday, August 16

Last Day for Regular Registration
Full-term session: Thursday, August 19
1st 5-week session: Thursday, August 19
2nd 5-week session: Thursday, August 19

Late Registration and Last Day to Add/Deposit
If you register or add during late registration, payment is due the same day you register. You will be assessed a minimum $500 late registration fee. See Baron’s Office information.

Full-term session: Friday, Aug. 26 - Monday, Aug. 29
1st 5-week session: Friday, Aug. 26 - Monday, Aug. 29
2nd 5-week session: Friday, Aug. 26 - Monday, Aug. 29

Census Day (State Reporting Date)
Full-term session: Wednesday, September 8
1st 5-week session: Wednesday, August 29
2nd 5-week session: Wednesday, August 29

Drop/Withdrawal Deadlines
Please check your calendar for the dates.

Fall Term Session
Last day to drop a class without a "W" ... Wed, Sept. 8
Unsolved Schedule
Approval required: Thur, Sept. 9 - Thurs, Nov. 5
Adjunct: Tues., Wednesday, October 6
Adjunct: Wednesday, November 3
Graduate Courses
Withdrawn: Wednesday, Nov. 3

Fall 5-Week Sessions
Last day to drop a class without a "W" ... Mon, Aug. 30
Unsolved Schedule
Approval required: Tues, Aug 31 - Mon Sept, 6
Adjunct: Tuesday, September 14
Adjunct: Monday, September 17
Adjunct: Monday, September 27
Graduate Courses
Withdrawn: Wednesday, Sept. 27

2nd 5-Week Session
Last day to drop a class without a "W" ... Mon, Oct. 26
Unsolved Schedule
Approval required: Tues, Oct. 26 - Mon, Nov. 22
Adjunct: Tuesday, November 9
Adjunct: Monday, November 22
Graduate Courses
Withdrawn: Monday, Nov. 22

Last Day of Classes (not including final exam)
Full-term session: Friday, December 3
1st 5-week session: Friday, December 3
2nd 5-week session: Friday, December 3

Reading Days (Six days prior to final exam)
Full-term and 5-week sessions only: Monday, Dec. 6

Final Exams
Full-term session: Tues, Dec 7 - Mon, Dec. 13
1st 5-week session: Mon, Oct. 11 - Sat, Dec. 13
2nd 5-week session: Tues, Dec. 7 - Mon, Dec. 13

Mid-Term Grades Due and Viewable Online
All mid-term grades must be submitted online.
Mid-term (undergraduate courses only) ... Thursday, Oct. 14

Final Grading Period
All grades must be received by Monday, December 20

Final Grades Viewable Online (after posting) ... Tues., Dec. 21

Graduation/Commencement (All Fall 2021 Sessions)
Graduation Application: ... Tuesday, August 31
Last day to change your primary name which will be printed on your diploma ... TBA
Commencement Activities: ... Fri, Dec. 17 - Sat, Dec. 18
Commencement tickets available online ... TBA
Commencement tickets available on ... TBA

The following deadlines must be met by the dates listed and require contact with the Office of Graduate Education (OGS)
www.utdallas.edu/education

Last day to request scheduling of a final doctoral exam ... Thurs., Oct. 28
First and final defense of dissertation for review by OGS ... Thurs., Nov. 11
First day to submit final version of dissertation for review by OGS ... Thurs., Nov. 18
First day by which approval of final version of dissertation by OGS is due ... Thurs., Dec. 2
Final day to submit final version of dissertation for review by OGS ... Tues., Dec. 29
Final day to submit final version of dissertation for review by OGS ... Tues., Dec. 29
For OGS Priority Deadlines, visit the deadline page.

University Closings:
Labor Day: Monday, September 7
Thanksgiving holidays: Thurs., Nov. 25 - Sun, Nov. 28
Winter break: TSA
No Classes: Full break: ... Mon, Nov. 22 - Wed, Nov. 24
Incompletes:
Incomplete grades due for undergraduates and graduates from previous long semester ... Monday, October 18
To take a CS 6000 level graduate course:

- Have a transcript showing that you have completed the levelling courses in your undergraduate work.
- Petition the Graduate Advisor for approval to enroll in the CS 6000 level course.
- PLS NOTE THE LEVELLING COURSE WILL NOT BE WAIVED TODAY BY ANY ADVISOR.
- YOU MUST APPLY SEPARATELY IN SEPTEMBER TO WAIVE YOUR LEVELLING COURSES.
- Refer to the UTD Graduate Catalog for Levelling courses.
Transfer/Waiver of Courses

- Transfer/Waiver seminars are scheduled in the second month of each long semester. The tentative Fall semester seminar dates are:
  - September 3rd week
  - September 24th from 5:00pm – 6:00pm.
  - Date and time will be announced late August.

- Due date of T/W applications is 4pm on Friday, October 8th. The completed applications must be placed in a box available in the Lobby of Graduate Studies Student Services Suite ECSS 3.908 or Emailed to dhyde@utdallas.edu
Transfer/Waiver of Courses

- Students from Non CS/Related backgrounds **MUST** complete the following **MINIMUM** levelling courses:
  - CS 5330 (Computer Architecture) *(equivalent UG course is CS 2340)*
  - CS 5333 (Discrete Structures),
  - CS 5343 (Data Structures & Algorithm Analysis) and
  - CS 5348 (Operating Systems).

- The above levelling courses generally will not be waived for the students from Non CS/Related backgrounds.

- Students who plan to waive levelling courses and/or transfer graduate courses are strongly suggested to visit with program/advising office to check for eligibility.

- Students who are not qualified to apply for waivers must take the levelling courses.
Tentative Degree Plan of Study

- Select your area of Computer Science Concentration:
  - Traditional Computer Science
  - Networks and Telecommunications
  - Intelligent Systems
  - Cyber Security
  - Systems Track
  - Data Science
  - Interactive Computing
  - Software Engineering (Must be SE_MS or SE_DR program)

- Levelling Courses
  - Cross out any not listed in your Admission Letter

- Complete Core, Elective, and Levelling Courses courses
  - Enter the course name, number, grade, and semester
    - 21F = Fall 2021
    - 22S = Spring 2022
    - 22U = Summer 2022
Review of Tentative Degree Plan of Study

➢ Review your Grade Point Average (GPA) in:
  – Core Courses
    • (need 3.19 over the five graduate courses)
  – Elective 6000 level courses
    • (need 3.00 over all)
  – Overall 3.00 or better GPA in UTD Graduate courses
  – Complete any Levelling Courses required by track.

➢ Submit your AOP to your Graduate Studies Staff member by the first week of October. This is a University requirement.
  ➢ Otherwise, you will have a degree plan hold.

➢ Review your Tentative Degree Plan with a Graduate Advisor.
Review of Tentative Degree Plan of Study

- Repeat this process at least once every academic year or when changing your track.

- Plan your graduation by discussing the degree plan with an advisor. **Must visit with an advisor one semester prior to Graduation.**

- CS department offers each core course at least once every academic year.
  - Students should plan their schedule carefully.
## COMPUTER SCIENCE DEGREE PLAN

### FT: Y N

Name of Student: ________________________________________________

Student I.D. Number: __________ / __________ / __________

Anticipated Date of Admission to Program: _______________

Graduation: _______________

### Course Title

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course Number</th>
<th>UTD Semester</th>
<th>Transfer</th>
<th>Grade</th>
</tr>
</thead>
</table>

**CORE COURSES** (15 Credit Hours) 3.2 Grade Point Average Required

Name

Name

Name

Name

Name

****APPROVED 6000 LEVEL ELECTIVES** (15 Credit Hours) 3.0 Grade Point Average

1

1

1

**Additional Electives (3 Credit Hours minimum)**

0

1

Other Requirements

<table>
<thead>
<tr>
<th>Levelling Courses</th>
<th>Course Title</th>
<th>UTD Semester</th>
<th>Waiver</th>
<th>Grade</th>
</tr>
</thead>
</table>

* May include any 6000 or 7000 level CS course without prior permission

Academic Advisor: __________________________________             Date Submitted: __________ / __________ / __________

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## Core Courses - Traditional

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6363</td>
<td>Computer Algorithms</td>
</tr>
<tr>
<td>CS 6378</td>
<td>Advanced Operating Systems</td>
</tr>
<tr>
<td>CS 6390</td>
<td>Advanced Computer Networks</td>
</tr>
</tbody>
</table>

*Any two of the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CS 6353</td>
<td>Compiler Construction</td>
</tr>
<tr>
<td>CS 6360</td>
<td>Database Design</td>
</tr>
<tr>
<td>CS 6371</td>
<td>Structure and Design of Programming Languages</td>
</tr>
</tbody>
</table>
Data Science Plan

<table>
<thead>
<tr>
<th>Core Courses – Data Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6313</td>
</tr>
<tr>
<td>CS 6350</td>
</tr>
<tr>
<td>CS 6363</td>
</tr>
<tr>
<td>CS 6375</td>
</tr>
</tbody>
</table>

**Any one of the following:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6301</td>
<td>Special Topic: Social Network Analytics</td>
</tr>
<tr>
<td>CS 6320</td>
<td>Natural Language Processing</td>
</tr>
<tr>
<td>CS 6327</td>
<td>Video Analytics</td>
</tr>
<tr>
<td>CS 6347</td>
<td>Statistics in AI and Machine Learning</td>
</tr>
<tr>
<td>CS 6360</td>
<td>Database Design</td>
</tr>
</tbody>
</table>
### Cyber Security Plan

<table>
<thead>
<tr>
<th>Core Courses – Cyber Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6324</td>
</tr>
<tr>
<td>CS 6363</td>
</tr>
<tr>
<td>CS 6378</td>
</tr>
</tbody>
</table>

**Any two of the following:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6332</td>
<td>System Security &amp; Malicious Code Analysis</td>
</tr>
<tr>
<td>CS 6348</td>
<td>Data and Application Security</td>
</tr>
<tr>
<td>CS 6349</td>
<td>Network Security</td>
</tr>
<tr>
<td>CS 6377</td>
<td>Introduction to Cryptography</td>
</tr>
</tbody>
</table>

Must also complete 2 Cyb Sec approved Electives.

Eric Moden will be your DPE and Shyam Karrah your Academic Advisor
## Core Courses - Intelligent Systems

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6320</td>
<td>Natural Language Processing</td>
</tr>
<tr>
<td>CS 6363</td>
<td>Design &amp; Analysis of Computer Algorithms</td>
</tr>
<tr>
<td>CS 6364</td>
<td>Artificial Intelligence</td>
</tr>
<tr>
<td>CS 6375</td>
<td>Neural Nets and Machine Learning</td>
</tr>
</tbody>
</table>

Plus one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6360</td>
<td>Database Design</td>
</tr>
<tr>
<td>CS 6378</td>
<td>Advanced Operating Systems</td>
</tr>
</tbody>
</table>
# Interactive Computing Plan

## Core Courses – Interactive Computing

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6326</td>
<td>Human Computer Interaction</td>
</tr>
<tr>
<td>CS 6363</td>
<td>Design &amp; Analysis of Computer Algorithms</td>
</tr>
</tbody>
</table>

*Any three of the following:*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6323</td>
<td>Computer Animation &amp; Gaming</td>
</tr>
<tr>
<td>CS 6328</td>
<td>Modeling and Simulation</td>
</tr>
<tr>
<td>CS 6331</td>
<td>Multimedia Systems</td>
</tr>
<tr>
<td>CS 6334</td>
<td>Virtual Reality</td>
</tr>
<tr>
<td>CS 6366</td>
<td>Computer Graphics</td>
</tr>
</tbody>
</table>
## Core Courses - Networks

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6352</td>
<td>Performance of Computer Systems &amp; Networks</td>
</tr>
<tr>
<td>CS 6363</td>
<td>Computer Algorithms</td>
</tr>
<tr>
<td>CS 6378</td>
<td>Advanced Operating Systems</td>
</tr>
<tr>
<td>CS 6385</td>
<td>Telecommunication Networks</td>
</tr>
<tr>
<td>CS 6390</td>
<td>Advanced Computer Networks</td>
</tr>
</tbody>
</table>
## Systems Degree Plan

### Core Courses – Systems

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 6304</td>
<td>Computer Architecture</td>
</tr>
<tr>
<td>CS 6363</td>
<td>Computer Algorithms</td>
</tr>
<tr>
<td>CS 6378</td>
<td>Advanced Operating Systems</td>
</tr>
<tr>
<td>CS 6396</td>
<td>Real Time Systems</td>
</tr>
<tr>
<td><strong>Any one of the following:</strong></td>
<td></td>
</tr>
<tr>
<td>CS 6349</td>
<td>Network Security</td>
</tr>
<tr>
<td>CS 6376</td>
<td>Parallel Processing</td>
</tr>
<tr>
<td>CS 6380</td>
<td>Distributed Systems</td>
</tr>
<tr>
<td>CS 6397</td>
<td>Synthesis and Opt of High Perf. Systems</td>
</tr>
</tbody>
</table>
## Core Courses - Software Engineering

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 6329*</td>
<td>Object Oriented Software Engineering</td>
</tr>
<tr>
<td>SE 6361</td>
<td>Advanced Requirements Engineering</td>
</tr>
<tr>
<td>SE 6362</td>
<td>Advanced Software Architecture and Design</td>
</tr>
<tr>
<td>SE 6367</td>
<td>Software Testing, Validation &amp; Verification</td>
</tr>
<tr>
<td>SE 6387</td>
<td>Advanced Software Engineering Project</td>
</tr>
</tbody>
</table>

* Credit will be given for only one of the following courses if students take them together to satisfy Computer Science and Software Engineering degree plan requirements:
  - CS 6329 Object-Oriented Software Engineering, and
  - CS 6359 Object-Oriented Analysis and Design (cannot be used on SE degree plan)

Rachel Spataro will be your DPE and Professor Shyam Karrah your Academic Advisor
# Levelling Courses

<table>
<thead>
<tr>
<th>Levelling Courses for all Degree Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 5303</td>
</tr>
<tr>
<td>CS 5330</td>
</tr>
<tr>
<td>CS 5333</td>
</tr>
<tr>
<td>CS 5343</td>
</tr>
<tr>
<td>CS 5348</td>
</tr>
</tbody>
</table>
### Additional Courses

<table>
<thead>
<tr>
<th><strong>Traditional</strong></th>
<th><strong>Software Engineering</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 5349</td>
<td>CS 5354</td>
</tr>
<tr>
<td>Automata Theory *</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>CS 5390</td>
<td></td>
</tr>
<tr>
<td>Computer Networks</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Networks</strong></th>
<th><strong>Cyber Security</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 3341</td>
<td>CS 5390</td>
</tr>
<tr>
<td>Probability &amp; Statistics</td>
<td>Computer Networks</td>
</tr>
<tr>
<td>CS 5390</td>
<td></td>
</tr>
<tr>
<td>Computer Networks</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Systems</strong></th>
<th><strong>Data Science</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 5390</td>
<td>CS 3341</td>
</tr>
<tr>
<td>Computer Networks</td>
<td>Probability &amp; Statistics</td>
</tr>
</tbody>
</table>

* Only for CS 6353-Compiler Construction & CS 6371-Structure & Design of Programming Languages
Students Seeking IA Certificate must start the process one semester (at the beginning) prior to graduating semester. After the degree plan audit with your advisor, you would ask your DPE to set you eligible to apply for the Certificate as well as your MS degree.

The Certificate must be applied for just as you applied for the MS or PhD program. Use the same application method and choose CSND_INASCERT.

Once admitted to the INASCERT program:

To get the certificate you must complete the following five courses with a Cumulative GPA of 3.2 or better

- CS 6324 Information Security
- CS 6348 Data and Application Security
- CS 6349 Network Security
- CS 6363 Design & Analysis of Computer Algorithms
- CS 6378 Advanced Operating Systems

The conferral date and program (INASCERT) will appear on your transcript.

**This Certificate is endorsed by NSA**
Students Seeking Cyber Ops Notation on transcript must start the process one semester (at the beginning) prior to graduating semester. After the degree plan audit with your advisor, you would send your request to your DPE for Cyber Op Notation.

**Requirement:** Must complete 6 core and 2 electives courses from the lists below:

### Core Courses
- CS 6340 Wireless Networks
- CS 6324 Information Security
- CS 6332 System Security & Malicious Code Analysis
- CS 6349 Network Security
- CS 6363 Design & Analysis of Computer Algorithms
- CS 6390 Advanced Computer Networks

### Elective Courses
- ACCT 6336 Info Tech Audit and Risk Mgmt *
- CE 6301 Advanced Digital Logic
- CS 6301 Secure Cloud Computing
- CS 6377 Intro to Cryptography
- CS 6396 Real Time Systems
- CS 7301 Cyber-physical Systems Security
- CS 6378 Advanced Operating Systems
- CS 6302 Microprocessor Systems
- CS 4397 Embedded Computer Systems *
- CS 4398 Digital Forensics *

*ACCT 6336, CS 4397, and/or CS 4398 will not count as an elective in any CS/SE graduate degree plan.

If you complete the work as detailed above AND Apply to have it added; a note will be added to your transcript.

**This Note is endorsed by the NSA**
Students:

- must have a signed acknowledgement of policies (AOP) in the file before end of first semester (October).
- must be in the correct Program 2 semesters before graduation.
- Changing from CS_MSCS to SE_MS or from SE_MS to CS_MSCS requires a New Application.
- Changing from CS_DR to SE_DR or from SE_DR to CS_DR requires a New Application.
- visit with an academic advisor annually for a degree plan audit and the SEMESTER prior to graduation for the grad audit.
- Choosing to miss more than a week of classes at the beginning of the semester may result in your being dropped or swapped into another course.
Master of Science Thesis Option in CS

- A Master of Science Thesis replaces two 6000 level electives (minimum of six credit hours)
- The Master’s Thesis provides an opportunity for your initial research activities
- The Master’s Thesis option is available in all areas of study in the Computer Science Program.
- The Master’s Thesis is recommended for a graduate student who is considering further graduate studies towards a Doctor of Philosophy program.
- We have one DPE for MS thesis…Doug Hyde
Once a student is enrolled in thesis, dissertation, or the third practicum, unless a leave of absence has been granted, that student must maintain continuous enrollment (not necessarily for thesis, dissertation, or practicum) of at least three semester hours during consecutive long semesters until the final approved copy of the manuscript has been deposited in the Office of the Dean of Graduate Studies.
Information for International Students

- Students participating in the Industrial Practice Program must enroll in a 1 credit hour course. This course cannot be used towards the graduation requirements. Students signing up for CPT must visit with a Graduate Advisor.

- The USCIS has determined that F1 students who are graduating may take only the courses required for graduation/course completion in their final semester.

- Students must get a new Sevis I-20 if they change majors or degree level. The new Sevis I-20 must be signed by the first day of class in the new academic program.

- For all questions regarding visa/OPT/reduced enrollment, please talk to the International Student Advisor at the ISSO.
As an F or J visa holder, the US Citizenship and Immigration Service requires that you make progress towards your degree to maintain your immigration status. Additionally, the federal regulation:

“If the student is not required to take any additional courses to satisfy the requirements for completion … the student is considered to have completed the course of study and must take action to maintain status. Such action may include application for OPT, application for change of status or departure from the U.S.”

Please be aware that postponing your graduation can negatively affect your immigration status now and in the future. Postponing graduation can be defined as any of the following:

- Taking any unnecessary classes
- Changing tracks within an academic program for the purpose of delaying graduation

Students with questions need to contact their International Student Advisor at the 972-883-4189 or in person at the ISSO, SSB 3.400

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION UNIVERSITY
Honor Code

Academic Integrity
The faculty expects from its students a high level of responsibility and academic honesty. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings. Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university’s policy on plagiarism (see general catalog for details).
Registration Process

• Early registration for Spring 2022 semester starts Nov. 2021.

• Early registration for Fall and Summer 2022 starts in April 2022.

• **Enrollment appointments are placed on your Orion account based on earned hours, and is randomized.**
  
  • It’s your responsibility to check out the schedule online and register in classes.

• If you don’t have any holds, you’ll be able to enroll in classes online. **We strongly recommend not to enroll in more than two core courses from any track.** Also, don’t enroll in three courses which are scheduled on same days.

• **Email:** The university encourages all official student email correspondence be sent only to a student’s U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account.
Registration Process

• FERPA will not allow another student to represent you for enrollment. You should not accept another persons Enrollment sheet and represent them.

• Nothing can be done by PHONE… Please DO NOT call… Use UTD email for official business.

• Students who go on academic probation (< 3.0 GPA) can enroll in classes ONLY after grades are obtained for the currently enrolled semester and after a visit with a CS Graduate Studies Director.
Graduates of Computer Science

- Graduates of Computer Science (GCS) is a student body composed of graduate students that organizes various events for CS graduate students such as hackathons and seminars.

- All graduate students are free to reach out to us regarding any query that they have. We encourage you to join GCS and take part in its activities.

- Please check out our page on Facebook to know more about us. You can access the page using this QR code.
Recruiting Resources

- Fall and Spring Intern Fairs
- Fall and Spring Career Expos
- Campus Interview program
- Employer Spotlights
- Handshake job portal
- 3 Jonsson School internship coordinators provide guidance on best practices for your job search.
Welcome to The University of Texas at Dallas!

Our program is designed specifically to provide career development support to Jonsson School students. Website: https://engineering.utdallas.edu/engage/students/internships/

Mary Ann Chou Stewart  
Assistant Director  
mary.ann.stewart@utdallas.edu  
Last Names: A to F

Kori Farley  
Internship Coordinator  
kori.farley@utdallas.edu  
Last Names: G to N

Andrea Croasdale Woudwyk  
Internship Coordinator  
acwoudwyk@utdallas.edu  
Last Names: O to Z

Email your internship coordinator (include UTD ID or Net ID please) if you have questions or if you would like to schedule a virtual appointment.

Services We Provide:
- CPT Orientations
- Resume Workshops
- Resume Critiques
- CPT Advising
- Interview Workshops
- Mock Interviews
- CPT Approval
- Job Search Workshops
- One-on-One Advising
- Internship Courses for Credit
- Internship Fairs
- Recruiting Events

*IPP CPT ORIENTATION – JONSSON SCHOOL F1 VISA STUDENTS*
Attendance is mandatory for all international students on an F1 visa prior to receiving an internship. We offer Remote CPT Orientation and Virtual CPT Orientation. We will email you the schedule for fall after semester begins.

*WORKSHOPS - Resume, Interview, Job Search*
In these workshops, IPP Internship Coordinators discuss the best standards and practices for internship search. We will email you the schedule for fall after semester begins.
• **ALL CS and SE PhD STUDENTS**
• PhD additional information Orientation and Advising will be held on a separate date and you will receive an email

Dr. Jorge Cobb
Professor, CS Department
Schedule Planner

1. Log In
   Sign into GALAXY

2. Locate Schedule Planner
   Under on-demand service
   Click "Schedule Planner"

3. Add Courses
   To take next term

4. Add Breaks
   To work off campus
   For no classes

5. Generate
   All possible schedules

6. View
   To see each schedule

7. Send to Shopping Cart
   From the "Now" screen, click the "Shopping Cart" button to begin registration
For more information:

Visit

cs.utdallas.edu/news/

Or

Contact Shyam Karrah at: skarrah@utdallas.edu