Summer 2013
Registration Announcement

The University of Tennessee
Space Institute
411 B. H. Goethert Parkway
Tullahoma, TN 37388-9700
888-822-8874 ext. 37228

www.utsi.edu
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<td>February 27 – May 28, 2013</td>
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</tr>
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</tr>
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<td>Memorial Day Holiday</td>
<td>May 27, 2013</td>
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<td>May 30 – June 7, 2013</td>
</tr>
<tr>
<td>Classes begin</td>
<td>May 30, 2013</td>
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<td>June 7, 2013</td>
</tr>
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<td>April 26, 2013</td>
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<td>July 4, 2013</td>
</tr>
<tr>
<td>No Classes</td>
<td>July 5, 2013</td>
</tr>
<tr>
<td>Last day to schedule final exam (thesis)</td>
<td>July 5, 2013</td>
</tr>
<tr>
<td>Last day to schedule final exam (non-thesis/capstone students)</td>
<td>July 5, 2013</td>
</tr>
<tr>
<td>Drop with a “W”</td>
<td>July 12, 2013</td>
</tr>
<tr>
<td>Last day to take final exam (thesis/dissertation students)</td>
<td>July 19, 2013</td>
</tr>
<tr>
<td>Last day to take final exam (non-thesis/capstone students)</td>
<td>July 19, 2013</td>
</tr>
<tr>
<td>Electronic Thesis/Dissertation due in Knoxville (5:00 P.M. EST)</td>
<td>August 2, 2013</td>
</tr>
<tr>
<td>Submit report of final examination (Pass/Fail) form</td>
<td>August 2, 2013</td>
</tr>
<tr>
<td>Deadline for Submission of Admission to Candidacy for students</td>
<td>August 9, 2013</td>
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<td>Graduating Fall 2013 and Graduation Application</td>
<td>August 9, 2013</td>
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<td>Deadline for removing &quot;INCOMPLETE&quot; grades</td>
<td>August 9, 2013</td>
</tr>
<tr>
<td>Classes End</td>
<td>August 9, 2013</td>
</tr>
<tr>
<td>Exam Period (Exams are given during the regularly scheduled class meeting times.)</td>
<td>August 9, 2013</td>
</tr>
<tr>
<td>Total Withdraw from the University Deadline</td>
<td>August 9, 2013</td>
</tr>
<tr>
<td>No Commencement Ceremony or Graduate Hooding – Graduation Date</td>
<td>August 10, 2013</td>
</tr>
<tr>
<td>Second thesis/dissertation deadline</td>
<td>August 20, 2013</td>
</tr>
<tr>
<td>Defense completed and Second Deadline Graduation Application submitted by August 9th</td>
<td>August 20, 2013</td>
</tr>
<tr>
<td>Student will receive diploma December 2013 but will not have to register for Fall 2013</td>
<td></td>
</tr>
</tbody>
</table>

**FALL SEMESTER 2013**

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority Registration</td>
<td>March 11 – August 19, 2013</td>
</tr>
<tr>
<td>Late Registration</td>
<td>August 21 – 30, 2013</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>August 21, 2013</td>
</tr>
<tr>
<td>Labor Day Holiday</td>
<td>September 2, 2013</td>
</tr>
<tr>
<td>Fall Break</td>
<td>October 17 -18, 2013</td>
</tr>
<tr>
<td>Thanksgiving Break</td>
<td>November 28 – 29, 2013</td>
</tr>
<tr>
<td>Classes End</td>
<td>December 3, 2013</td>
</tr>
<tr>
<td>Study Period</td>
<td>December 4, 2013</td>
</tr>
<tr>
<td>Exam Period</td>
<td>December 5, 6, &amp; 9, 2013</td>
</tr>
<tr>
<td>Graduate Hooding Ceremony (UTK)</td>
<td>December 12, 2013</td>
</tr>
<tr>
<td>Commencement (UTK)</td>
<td>December 13, 2013</td>
</tr>
</tbody>
</table>

Dates may be revised without notice. Please refer to the following sites for updates:

http://gradschool.utk.edu/ddategraduation.shtml  
http://registrar.tennessee.edu/academic_calendar/index.shtml
SUMMER SEMESTER 2013

EXAM SCHEDULE

LAST DAY OF CLASSES.................................................................August 9, 2013

FINAL EXAMS FOR SUMMER ARE GIVEN DURING THE REGULARLY SCHEDULED CLASS MEETING TIMES.

**** ATTENTION ****

ALL STUDENTS TAKING RECORDED COURSES
CONTACT INSTRUCTOR FOR DATE AND TIME OF FINAL EXAM
REGISTRATION ANNOUNCEMENT
SUMMER SEMESTER 2013

REGISTRATION PROCEDURE

ADVISING

Graduate students should contact their departmental faculty to arrange an advising appointment. For students not accepted into specific programs, the Assistant to the Dean of Graduate Studies or his/her designee may act as advisor. The web registration system will ask if you have discussed your program with your advisor. Answer ‘yes’ if you have; otherwise, you cannot continue with the registration process. Graduate School Web Page: http://gradschool.utk.edu/.

REGISTRATION

Students will register at http://my.utk.edu. You will need to log in using your NetID and your NetID password. If you do not know your NetID and NetID password, go to http://registrar.utk.edu/registration.shtml.

*Log in to MyUTK. You can find a link by looking under “M” on the A-Z index (http://www.utk.edu/alpha/) or by typing myutk.utk.edu directly into your browser. You will need to log in by typing utk\your NetID in the “username” field and then your NetID password in the “password” field.

*Before you attempt to register, clear and pay any financial holds (parking tickets, library fines, fees, etc.).

*Look under the “For Your Review” heading on the MyUTK portal page (located in the upper right-hand corner) for notification of any holds you may have.

*Once you are logged into “My UTK,” scroll down to “UTK Student Links.” Click on “Search for Classes” to look up sections and then register.

*Print a copy of your schedule when you are finished registering.

If you have any questions, call the Office of the University Registrar at 865-974-2101 or contact Charlene Hane in Student Services room D-100, phone 931-393-7228, email chane@utsi.edu.

FINANCIAL CALENDAR

Statement information available on MyUTK May 15, 2013

Summer 2013 Fees Due for Priority Registered Student by 4:30 p.m. (EST) May 28, 2013

Late Registration/Late Fees Begin May, 30, 2013

Summer 2013 Late/Final Registration Fees Due by 4:30 p.m. (EST) July 29, 2013

NOTE: PAYMENT AND THE CONFIRMATION OF ATTENDANCE FORM MUST BE RECEIVED BY THESE DEADLINES WHETHER OR NOT YOU HAVE RECEIVED A VolxPress e-STATEMENT. You may view your account at MyUTK.
FINAL/LATE REGISTRATION PERIOD

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 30 – June 5, 2013</td>
<td>$20</td>
</tr>
<tr>
<td>June 6 – 12, 2013</td>
<td>$40</td>
</tr>
<tr>
<td>June 13 – 19, 2013</td>
<td>$60</td>
</tr>
<tr>
<td>June 20 – 26, 2013</td>
<td>$80</td>
</tr>
<tr>
<td>June 27, 2013 – forward</td>
<td>$100</td>
</tr>
</tbody>
</table>

CREDIT CARD PAYMENTS

NOTE: If you pay your fees using MyUTK with a credit/debit card (Discover, VISA, Mastercard) you will be accessed a 2.5% service fee. To avoid this service fee you will need to make payment to the UTSI Budget and Finance Office.

SPECIAL BILLING – THIRD PARTY BILLING:

The Budget and Finance Office will generate a billing after the student has provided a letter of authorization from the third party sponsor. Authorization must include the sponsor’s name and address as well as the maximum amount which will be paid for each specific term. The authorization can be mailed to UTSI Budget and Finance Office, MS#12, 411 B.H. Goethert Parkway, Tullahoma, TN 37388-9700 or email it to jboyles@utsi.edu. Since students are responsible for all University fees and charges, use of the third-party address as the student’s billing address is strongly discouraged.

STUDENTS ARE ULTIMATELY RESPONSIBLE FOR ALL CHARGES. THEY MUST COMPLETE A CONFIRMATION OF ATTENDANCE FORM AND MAKE CERTAIN MINIMUM PAYMENT AMOUNTS CREDITED OR AUTHORIZED ON OR BEFORE THE PAYMENT DUE DATE IN ORDER TO AVOID LATE PAYMENT FEE ASSESSMENT AND SCHEDULE CANCELLATION.

If you have any questions concerning third-party billing please call Jennifer Boyles at 931-393-7297 or 888-822-8874 ext. 37297 or by email jboyles@utsi.edu

TOLL-FREE NUMBERS

For a specific office: 1-888-822-UTSI (8874) and the extension number.
For general information: 1-888-822-UTSI (8874)
Admissions Office: 1-888-822-UTSI (8874)-37213
Budget and Finance Office: 1-888-822-UTSI (8874)-37297
Student Services 1-888-822-UTSI (8874)-37228

APPLICATION FOR ADMISSION

No student will be allowed to register unless a completed Application for Admission to the Graduate School of the University of Tennessee, Knoxville (UTK) is on file in the Registrar's Office. An Application for Admission to the UTK Graduate School must be accompanied by a $60.00 non-refundable application fee, payable to The University of Tennessee Space Institute. Applicants are required to provide one official transcript of all undergraduate and graduate records. Students may apply on-line at http://admissions.utk.edu/graduate/apply.shtml [click on APPLY ONLINE and Follow Directions]. Send Applications for Admission, transcripts, GRE scores (if required); and if international application, TOEFL scores to the Admissions Office, A-200, Mail Stop 1, UTSI, Tullahoma, TN 37388-9700.
FEES

Late fees will begin on May 30, 2013. The only credit/debit cards The University of Tennessee Space Institute accepts are Visa, MasterCard and Discover.

NEW FOR FALL 2011

In February 2011, a new fee structure for students who are enrolled in dual campus locations was approved beginning Fall 2011. The University of Tennessee, Knoxville allows students to enroll in multiple campuses which include the following: Knoxville, UTSI, Distance Education, Nashville School of Social Work and off-campus locations. Students enrolling in dual campus locations will be assessed all fees for each campus they are enrolled. For example, students enrolled in classes on the Knoxville campus and also taking Distance Education courses will be assessed the per hour rate of all the fees for the Knoxville campus (Maintenance, Out-of-State Tuition, Programs and Service, Health, Technology, Facilities, Transportation, and any course fees that may be associated with a particular class) and the per hour rate of all the fees for the Distance Education courses (Maintenance, Out-of-State Tuition, the Distance Education Course Fee, and any course fees that may be associated with a particular course). The Out-of-State Tuition will be charged only to students who are classified as out-of-state per the appropriate Admissions Office.

UTSI students are assessed the per hour rate for the following: Maintenance, Tuition (if out-of-state), the UTSI Activity Fee, and any course fees that may be associated with a particular class. UTSI students taking mixed campus courses will follow the same fee assessment rules as above. The total per hour fee assessment will not exceed the Full-Time rate of 9 hours for Graduate students.

FEES OF DISTANCE STUDENTS

Distance students should contact their departmental coordinator to determine the amount of the access fee.

Aviation Systems  Peter Solies  931-393-7289  psolies@utsi.edu
Engineering Mgt.  Charlotte Henley  931-393-7293  chenley@utsi.edu

TUITION AND/OR MAINTENANCE FEES

Full Fees for In-State Students (per semester)

Maintenance Fee .......................................................... $4,500.00*
Programs and Services Fee .................................................. 60.00
Total ........................................................................... $4,560.00

Full Fees for Out-Of-State Students (per semester)

Maintenance Fee .......................................................... $4,500.00*
Programs and Services Fee .................................................. 60.00
Tuition ........................................................................... $9,094.00*
Total ............................................................................ $13,654.00

An additional $54.00 per credit hour with no cap will be charged to ALL ENGINEERING COURSES (including courses that are cross-referenced).

*All fees are subject to changes approved by the Board of Trustees prior to the beginning of the term.
TUITION FOR PART-TIME STUDENTS

Part time students may elect to pay fees computed by the semester hour credit as follows:

<table>
<thead>
<tr>
<th></th>
<th>IN-STATE</th>
<th>OUT-OF-STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$501.00 per</td>
<td>$1,512.00 per</td>
</tr>
<tr>
<td></td>
<td>semester hour</td>
<td>semester hour</td>
</tr>
<tr>
<td>3 hours</td>
<td>$1,503.00</td>
<td>$4,536.00</td>
</tr>
</tbody>
</table>

ENGINEERING FEE

On July 1, 2007, the Computer Science Department merged with the Engineering Department. Beginning Fall 2008, a special per credit hour fee will be assessed on engineering and computer science courses offered through the College of Engineering and the College of Agricultural Sciences and Natural Resources. The additional funds will be used to acquire state-of-the-art equipment, expand first-year programs for Engineering students, and provide faculty with professional development opportunities to bring the latest knowledge into the classroom. The Colleges will retain the funds generated from this fee for their use.

PROGRAMS AND SERVICES FEE

All students enrolled in six semester hours or more for the semester are assessed an activity fee of $60.00 per semester. Part-time students taking fewer than six hours will be assessed at the rate of $10.00 per semester hour. The Programs and Services Fee is non-refundable. Research assistants and fellowship/scholarship students who may have a waiver of fees (tuition), must pay appropriate University Programs and Services Fee.

Part-time students enrolled for recorded classes at off campus centers and students residing out of state are not required to pay the Programs and Services Fee.

RETURNED CHECK POLICY

All checks are deposited the day they are received. A $30.00 service charge will be assessed when checks fail to clear the bank on which drawn. In addition, if the returned check is in payment of initial fees and charges, the late payment fee in effect at the time the check is redeemed will be added to the returned check service fee. Returned checks will not be re-deposited. Cash or a cashier's check is required for payment of a returned check, late fee, and service charges. Failure to clear returned checks will result in the forfeiture of all University services including the receipt of grades, transcripts, and schedules of classes.

DEFERRED PAYMENT PLAN

Although fees, rent and other University expenses are due and payable at the beginning of each term, a full-time student in good financial standing with a definite anticipated source of funds may request the deferment of up to 50% of the total charges at registration. The remaining balance for the term is due approximately 45 days after the first due date. All financial aid monies must be applied to fees before a deferment will be considered. A deferred payment service fee of $20.00 is assessed when any portion of tuition, fees, and other charges are deferred with the approval of the Business Office. An additional $35.00 late payment charge will be assessed if the second installment is not paid on or before the due date. For more details, contact the Business Office.
LATE PAYMENT FEES

A Late Payment Fee of $35.00 will be added to each VOLXpress account if the minimum payment amount which is printed on the statement is not received by the Bursar’s Office on or before the published due date. This does not include beginning of term registration statements which will result in cancellation of schedules if the minimum payment is not met. Late payment fees are exclusive of all other charges and are due when assessed whether or not the student receives a VOLXpress statement. Accounts are subject to a late fee of $45.00 if there is an account balance at mid-semester. The fee is assessed in addition to the unpaid fees and charges and the account balance must be paid in order to access registration services, receive a transcript, grades, or a diploma.

TUITION/FEES POLICY FOR DROPPED COURSES OR WITHDRAWAL

THE PERCENTAGE TUITION REFUNDS SPECIFIED ON THE FOLLOWING PAGE ARE APPLICABLE WHEN A STUDENT DROPS ONE OR MORE COURSES (INCLUDING TOTAL WITHDRAWAL). Students who drop courses and continue with a reduced course load are eligible for a refund only if the total charges at the semester hour rate for the courses continued plus the percentage assessed at the semester hour rate for the courses dropped results in an amount less than that paid. The Programs and Service Fee is non-refundable.

******************************************************************************
A COURSE IS NOT OFFICIALLY DROPPED UNTIL A CHANGE OF REGISTRATION FORM HAS BEEN PROCESSED BY THE REGISTRAR’S OFFICE. CANCELED COURSES OR FAILURE TO ATTEND CLASS DOES NOT AUTOMATICALLY WITHDRAW OR DROP A STUDENT FROM THE UNIVERSITY OR CLASS — A CHANGE OF REGISTRATION FORM MUST BE COMPLETED.
******************************************************************************

The following percentage assessments are applicable for courses dropped (if fees are assessed at the semester hour rate):

<table>
<thead>
<tr>
<th>DROP DATE</th>
<th>CHARGE</th>
<th>REFUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 30 – June 3, 2013</td>
<td>NO CHARGE</td>
<td>100%</td>
</tr>
<tr>
<td>June 4 – 9, 2013</td>
<td>20% CHARGE</td>
<td>80%</td>
</tr>
<tr>
<td>June 10 – 14, 2013</td>
<td>40% CHARGE</td>
<td>60%</td>
</tr>
<tr>
<td>June 15 – 19, 2013</td>
<td>60% CHARGE</td>
<td>40%</td>
</tr>
<tr>
<td>June 20, 2013 – End of Term</td>
<td>100% CHARGE</td>
<td>0%</td>
</tr>
</tbody>
</table>

TUITION/FEES REFUND POLICY FOR WITHDRAWALS

Withdrawal from school for the term after registration has been processed, even though classes have not been attended or fees paid, must be by official notification to the Registrar's office. The effective date of withdrawal is the date the Registrar's office is notified by completion of the Change of Registration request form. FAILURE TO ATTEND CLASS DOES NOT AUTOMATICALLY CANCEL ENROLLMENT. The appropriate percentage of fees will be charged unless the Registrar's Office is notified by the close of the last day designated for registration and before the first official day of classes for the semester or term. WITHDRAWAL DOES NOT CANCEL FEES AND CHARGES ALREADY INCURRED. THE DROP/ADD PROCEDURE CAN NOT BE USED TO WITHDRAW FROM SCHOOL FOR THE SEMESTER OR TERM. When a course is canceled by UTSI administration, the students who have registered for the course will be notified by either the instructor and/or Charlene Hane,
Student Services. Any questions concerning registration, please contact Charlene Hane, UTSI, Office D-100, 931-393-7228.

The University of Tennessee Space Institute, in accordance with federal regulations, follows the policy and procedures below for calculating refunds and repayments for financial aid.

**REFUNDS**

Refunds are defined as the portion of maintenance and/or tuition and University housing charges due as rebate when a student withdraws or is expelled from the University. The amount of a refund is determined by the drop date charge fee table.

**REPAYMENTS**

Repayments are defined as that portion of aid, received by a student after the University direct charges have been paid by that aid, which must be repaid by a student when a student withdraws or is expelled. The amount of the repayment is determined by the Drop Date Charge fee table.

Refunds and repayments to the Title IV programs are determined according to the formula published in the current Federal Student Financial Aid Handbook. The Business and Admissions Offices are responsible for determining the amount of the refund and/or repayment and distributing the correct amount back to the financial aid programs according to the Refund/Repayment Allocation Policy.

**TOTAL WITHDRAWAL FROM THE UNIVERSITY**

If, after registering for classes and either returning your fee payment or your Confirmation of Attendance form to the Bursar’s Office, you decide not to enroll for this term, you must immediately notify Charlene Hane, Student Services, at UTSI. If you withdraw officially on or before a Change of Registration deadline, but after the no “W” deadline for a particular session, the grade of “W” will be issued.

**GRADES**

Students may obtain their grades through the web at MyUTK or contact Charlene Hane, Student Services, Office D-100, 931-393-7228.

**GRADUATE STUDENTS CHANGE OF REGISTRATION AFTER THE DEADLINE**

To change registration in any way after the deadline, a graduate student must present a request, signed by the instructor(s) and adviser as evidence of their knowledge of the request to Charlene Hane, Student Services at UTSI. Graduate students must verify that ALL changes have been approved by their academic adviser. If the Office of Graduate Student Services approves the change of registration, the change will be noted on the student’s permanent record. **THE DROP DEADLINE FOR GRADES AND THE DROP DEADLINE FOR FEE REFUNDS ARE NOT THE SAME.**

**FULL-TIME STUDENTS**

Students enrolled in at least 9 semester hours during the Fall/Spring semesters or 6 hours in the Summer Term are considered full-time students. Research Assistants must be full-time students and also enroll in one of the MABE 595 seminars or a PHYS 599 seminar each term, unless a waiver is granted by the Associate Executive Director.
REMOVAL OF INCOMPLETE GRADES

All Incomplete Grades (I) must be removed prior to graduation. The instructor, in consultation with the student, decides the terms for the removal of the I, including the time limit for removal. If the I is not removed within one calendar year, the grade will be changed to an F. The course will not be counted in the cumulative grade point average until a final grade is assigned. No student may graduate with an I on the record. Students planning to graduate Fall Semester 2012 must remove all INCOMPLETE GRADES by August 9, 2013. Contact Charlene Hane, Student Services, to remove an Incomplete Grade.

REPEATING A COURSE

No graduate student may repeat a course for the purpose of raising a grade already received, with the exception of a NC course. A graduate student cannot do additional work nor repeat an examination to raise a final grade.

ADMISSION TO CANDIDACY

MASTER OF SCIENCE DEGREE:

Each M.S. student, including IE Capstone Project students, is responsible for submitting a completed and signed Admission to Candidacy Application at least one semester prior to receiving the degree.

Candidacy committee changes or course changes must be submitted to the committee chairman using a Revision form. If changing from a thesis option to a non-thesis option or vice versa, a new Admission to Candidacy Application must be submitted. All forms must be processed through Student Services.

DOCTORAL DEGREE:

A Doctoral Committee should be formed during the student's first year of doctoral study. Any changes to the doctoral committee (deletions or additions) must be submitted to the Committee Chairman using a Revision form for approval. Each doctoral student is responsible for submitting a completed Admission to Candidacy form signed by the doctoral committee at least one semester prior to receiving the degree. All forms must be processed through Student Services.

CONTINUOUS REGISTRATION OF DOCTORAL STUDENTS

Course 600 is reserved for doctoral research and dissertation hours. Initial registration for 600 should be determined by each department and generally corresponds to the time at which a student begins work actively on dissertation research. From this time on, students are required to register continuously for at least 3 hours of 600 each semester, including summer term. A minimum total of 24 hours of course 600 is required.

A student who will not be using faculty services and/or university facilities for a period of time may request leaves of absence from dissertation research up to a maximum of six terms (including summer terms). The request (form found online at http://gradschool.utk.edu/forms/leaveofabsence_reader.pdf) should be completed by the student and then sent to the major professor (advisor) for endorsement. The completed form is then submitted to Graduate School for review and processing.
A candidate presenting a thesis or dissertation must pass a final oral examination on all work offered for the degree. The examination is scheduled through Student Services. Failure to notify Student Services of the examination date will put the student at risk for graduating that semester. Final examinations not properly scheduled MUST be repeated. The final draft of the thesis must be distributed to the committee members at least two weeks prior to the date of the final examination. In case of a grade of "Fail", the candidate may not apply for re-examination until the following semester. The result of the second examination is final.

UT POLICY ON INSURANCE FOR INTERNATIONAL STUDENTS

All foreign national students registered with the University of Tennessee, Knoxville, are required to have comprehensive medical insurance. The policy for the 2012-2013 academic year is provided by Aetna. The premium must be paid before registration. Contact the Human Resources Office (A-104 ext. 37267) for further information.

GENERAL SEMINAR

A number of seminars of interest to all UTSI students and general public will be offered throughout the semester.

FINAL EXAM DATES

Final exams for summer semester are given during the regularly scheduled class meeting time.

HONOR STATEMENT

The following Honor Statement is signed by all students applying to The Graduate School:

"An essential feature of The University of Tennessee, Knoxville is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity."

For official information on all UTK Graduate School policies, refer to the current UTK Graduate Catalog available at [http://catalog.utk.edu](http://catalog.utk.edu). The student handbook “Hilltopics” is available in Student Services, D-100 or online at [http://dos.utk.edu/files/HT2011revised.pdf](http://dos.utk.edu/files/HT2011revised.pdf).

The University of Tennessee Space Institute reserves the right to cancel any class with an insufficient number of students, or for other reasons.
THE UNIVERSITY OF TENNESSEE POLICY ON A DRUG-FREE CAMPUS AND WORKPLACE

In support of the Drug-Free Workplace Act of 1998 (Public Law 100-690) and the Drug-Free Schools and communities Act of 1989, the University of Tennessee is notifying all students, faculty, and staff of the following university policy approved by the UT Board of Trustees on 21 June 1990.

It is the policy of the University of Tennessee to maintain a safe and healthful environment for its students and employees. Therefore, university policy prohibits the unlawful use, manufacture, possession, distribution, or dispensing of drugs ("controlled substances" as defined in the Controlled Substances Act, 21 U.S.C. 812) and alcohol on university property or during university activities.

Violation of this policy is grounds for disciplinary action--up to and including immediate discharge for an employee and permanent dismissal of a student. Federal and state laws provide additional penalties for such unlawful activities, including fines and imprisonment (21 U.S.C. 841 et seq.; T.C.A. 39-6-401 et seq.). Local ordinances also provide various penalties for drug- and alcohol-related offenses. The university is bound to take all appropriate actions against violators, which may include referral for legal prosecution or requiring the individual to participate satisfactorily in an approved drug use or alcohol abuse assistance or rehabilitation program.
THE UNIVERSITY RESERVES THE RIGHT TO REVISE
ANY INFORMATION LISTED IN THIS TIMETABLE OF CLASSES

The University of Tennessee Space Institute
Summer 2013 Course Listings

AEROSPACE ENGINEERING

AE  500  Thesis (1-15)
  002 CRN 82039  Abedi
  003 CRN 82040  Antar
  004 CRN 82041  Anusonti-Inthra
  005 CRN 82042  Flandro
  009 CRN 82046  Majdalani
  010 CRN 82047  Moeller
  011 CRN 82048  Solies
  013 CRN 82050  Steinhoff
  014 CRN 82051  Vakili
  015 CRN 82052  Zhang

Grading Restriction: P/NP only.
Repeatability: May be repeated.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level – graduate.

AE  502  Registration for Use of Facilities (1-15)
SEC.  003 CRN 82054  Moeller

Required for the student not otherwise registered during any semester when student uses university
facilities and/or faculty time before degree is completed.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated.
Credit Restriction: May not be used toward degree requirements.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level – graduate.

AE  525  Hypersonic Flow (3)
SEC.  001 CRN 83708
TEXT:  *Hypersonic and High Temperature Gas Dynamics*; John D. Anderson; American
        Institute of Aeronautics and Astronautics; 2nd Edition
TIME:  Tuesday & Friday       9:30 – 11:30       E-113
PROFESSOR:  Dr. Trevor Moeller

Slender body flow; similitude; Newtonian theory; blunt body flow; viscous interactions; free molecule
and rarefied gas flow.
(DE) Prerequisite(s):  512
AE  590  Selected Engineering Problems (3)
SEC.  001 CRN 82056  Abedi
002 CRN 82057  Antar
003 CRN 82058  Anusonti-Inthra
004 CRN 82365  Flandro
005 CRN 82366  Majdalani
006 CRN 82367  Moeller
007 CRN 82368  Solies
008 CRN 82369  Steinhoff
009 CRN 82370  Vakili
010 CRN 83693  Zhang

Repeatability: May be repeated. Maximum 6 hours.
Comment(s): Enrollment limited to students in problems option.
Registration Permission: Consent of advisor.

AE  599  Special Topics in AE: Combustion Instability of Gas Turbine Engines (3)
(Same as ME 599 002 CRN 83929)
SEC.  003 CRN 83298
TIME: Monday & Wednesday 1:00- 2:15    B-210
PROFESSOR: Dr. Joseph Majdalani

Combustion instability in gas turbines; designing for stability; passive control methods; flame dynamics in swirl injectors; vorticoacoustic flame interactions; acoustic analysis; stability prediction; active control. Prereq: Fundamentals of Aeroacoustics, AE 562, or consent of instructor.

AE  600  Doctoral Research and Dissertation (3-15)
SEC.  002 CRN 82060  Abedi
003 CRN 82061  Antar
004 CRN 82062  Anusonti-Inthra
005 CRN 82063  Flandro
011 CRN 82069  Majdalani
012 CRN 82070  Moeller
013 CRN 82815  Solies
014 CRN 83674  Steinhoff
015 CRN 83675  Vakili
016 CRN 83676  Zhang

Grading Restriction: P/NP only.
Repeatability: May be repeated.
Registration Restriction(s): Minimum student level – graduate.
**AVIATION SYSTEMS**

**AVSY 500 Thesis (1-15)**
- SEC. 001 CRN 81746 Martos
- 002 CRN 81747 Pujol
- 004 CRN 81749 Solies

*Grading Restriction: P/NP only.*
*Repeatability: May be repeated.*
*Credit Level Restriction: Graduate credit only.*
*Registration Restriction(s): Minimum student level - graduate.*

**AVSY 502 Registration for Use of Facilities (1-15)**
- SEC. 001 CRN 81767 Martos
- 002 CRN 81768 Pujol
- 004 CRN 81770 Solies

Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed.
*Grading Restriction: Satisfactory/No Credit grading only.*
*Repeatability: May be repeated.*
*Credit Restriction: May not be used toward degree requirements.*
*Credit Level Restriction: Graduate credit only.*
*Registration Restriction(s): Minimum student level - graduate.*

**AVSY 550 Project in Aviation Systems (3)**
- SEC. 001 CRN 81772 Martos
- 002 CRN 81773 Pujol
- 004 CRN 81775 Solies

*Repeatability: May be repeated. Maximum 15 hours.*
*Credit Restriction: Maximum of 3 hours may be applied toward degree requirements.*
*Comment(s): Non-thesis aviation systems majors only.*
*Credit Level Restriction: Graduate credit only.*
*Registration Restriction(s): Minimum student level - graduate.*

**BIOMEDICAL ENGINEERING**

**BME 500 Thesis (1-15)**
- SEC. 010 CRN 83321 Johnson

*Grading Restriction: P/NP only.*
*Repeatability: May be repeated.*
*Credit Level Restriction: Graduate credit only.*
*Registration Restriction(s): Minimum student level - graduate.*
BME 529 Applications of Linear Algebra in Engineering Systems (3)
SEC. 001 CRN 82087
TIME: Tuesday, Thursday & Friday 10:00 – 11:15 E-111
PROFESSOR: Dr. Monty Smith

Fundamental concepts of linear algebra to problems in engineering systems: steady state and dynamic systems. Geometric and physical interpretations of relevant concepts: least square problems, LU, QR, and SVD decompositions of system matrix, eigenvalue problems, and similarity transformations in solving difference and differential equations; numerical stability aspects of various algorithms; application of linear algebra concepts in control and optimization studies; introduction to linear programming. Computer projects.


Cross-listed: (Same as Chemical and Biomolecular Engineering 529; Electrical and Computer Engineering 529; Industrial Engineering 529; Materials Science and Engineering 529; Mechanical Engineering 529.)

Comment(s): Graduate standing or consent of instructor required.

BME 599 Special Topics in Biomedical Engineering: Data Interpretation for Engineers II (3)
SEC. 002 CRN 83706
TIME: Tuesday & Thursday 10:45 – 12:45 E-110
PROFESSOR: Dr. Jacqueline Johnson

Mathematics review (interpolation, extrapolation, differentiation, integration and normalization). Signal Processing (FFT and IFFT, STFT, convolution, correlation, smoothing, filtering, wavelets).

Each student will require a computer and access to Origin Software.

BME 600 Doctoral Research and Dissertation (3-15)
SEC. 009 CRN 83322 Johnson

Grading Restriction: P/NP only.
Repeatability: May be repeated.
Registration Restriction(s): Minimum student level – graduate.
CHEMICAL AND BIOMOLECULAR

CBE  529  Applications of Linear Algebra in Engineering Systems (3)
SEC. 001  CRN  82108
TEXT:  *Advanced Linear Algebra for Engineers with MATLAB*; Sohail A. Dianat and Eli S. Saber; 
TIME:  Tuesday, Thursday & Friday  10:00 – 11:15  E-111
PROFESSOR:  Dr. Monty Smith

Fundamental concepts of linear algebra to problems in engineering systems: steady state and dynamic 
systems. Geometric and physical interpretations of relevant concepts: least square problems, LU, QR, and 
SVD decompositions of system matrix, eigenvalue problems, and similarity transformations in solving 
difference and differential equations; numerical stability aspects of various algorithms; application of 
linear algebra concepts in control and optimization studies; introduction to linear programming. Computer 
projects.

Methods of linear algebra with application to engineering problems. Systems of linear equations: matrix-
vector notation, solutions to linear equations, determinants, matrix inversion. Vector spaces: spanning 
sets, orthogonality, matrix decompositions, linear transformations. Eigenvalues and eigenvectors: 
characteristic polynomials, singular value decomposition. The Cayley-Hamilton theorem: matrix 

Cross-listed: (Same as Biomedical Engineering 529; Electrical and Computer Engineering 529; 
Industrial Engineering 529; Materials Science and Engineering 529; Mechanical Engineering 529.)
Comment(s): Graduate standing or consent of instructor required.

COMPUTER SCIENCE

CS  572  Numerical Mathematics II (3)
SEC. 001  CRN  83704
TEXT: (1) *Numerical Mathematics*; A. Quarteroni, R. Sacco, F. Saleri; Springer; 2nd Edition; 
P.L. DeVries, J.E. Hasbun; and selected lecture notes including Matlab introductory notes; 
TIME:  Monday & Wednesday  10:00 – 12:00  E-111
PROFESSOR:  Dr. Christian Parigger

Numerical techniques for initial value problems of ordinary differential equations. Two-point boundary 
Fast Poisson solvers.

Cross-listed: (Math 572.)
(DE) Prerequisite(s): 571 or consent of instructor.
Students wishing to count this course toward IGMCS should enroll under Math 572, since IGMCS will 
count it as a Math course only.

Comments: Part II of a trilogy, part 1 was NumMath I, part 3 is PDE methods.
(A) Summer 2012: CS571/MATH571 Numerical Mathematics I: Direct and iterative methods for linear 
systems. The algebraic eigenvalue problem and the singular decomposition theorem. Newton and quasi-
Newton methods for systems of nonlinear equations. Cross-listed: (Same as Computer Science 571.)

ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

ECE  529   Applications of Linear Algebra in Engineering Systems (3)
SEC.  001   CRN   82296
TIME: Tuesday, Thursday & Friday                        10:00 – 11:15                 E-111
PROFESSOR: Dr. Monty Smith

Fundamental concepts of linear algebra to problems in engineering systems: steady state and dynamic systems. Geometric and physical interpretations of relevant concepts: least square problems, LU, QR, and SVD decompositions of system matrix, eigenvalue problems, and similarity transformations in solving difference and differential equations; numerical stability aspects of various algorithms; application of linear algebra concepts in control and optimization studies; introduction to linear programming. Computer projects.


Cross-listed: (Same as Biomedical Engineering 529; Chemical and Biomolecular Engineering 529; Industrial Engineering 529; Materials Science and Engineering 529; Mechanical Engineering 529.)

Comment(s): Graduate standing or consent of instructor required.

ECE   600   Doctoral Research and Dissertation (3-15)
SEC.  028   CRN  82327   Bomar
Grading Restriction: P/NP only.
Repeatability: May be repeated.
Registration Restriction(s): Minimum student level – graduate.

ENGINEERING MANAGEMENT

EM  501   Capstone Project (3-6)
SEC.  001   CRN  80004   Simonton
Application-oriented project to show competence in major academic area.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 6 hours.
Comment(s): Requires enrollment in engineering management.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level – graduate.
EM  502  Registration for Use of Facilities (1-15)  
SEC.  001  CRN 80005  Simonton

Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed.  
*Grading Restriction: Satisfactory/No Credit grading only.*  
*Repeatability: May be repeated.*  
*Credit Restriction: May not be used toward degree requirements.*  
*Credit Level Restriction: Graduate credit only.*  
*Registration Restriction(s): Minimum student level – graduate.*

EM  536  Project Management (3) (Video Recorded)  
SEC.  001  CRN 80006  UTSI students participating at Tullahoma or Oak Ridge  
002  CRN 80007  UTSI students participating elsewhere  
003  CRN 80008  UTK students participating at Knoxville DE classrooms  
004  CRN 80009  UTK students participating elsewhere  
TEXT: *A Managerial Approach;* J. Meredith, S. Mantel, Jr, .8th edition;  
TIME: Monday & Wednesday  4:00 - 6:35  E-113  
PROFESSOR: Dr. James Simonton

A Managerial Approach; J. Meredith, S. Mantel, Jr. 8th edition;  
TIME: Monday & Wednesday  4:00 - 6:35  E-113  
PROFESSOR: Dr. James Simonton

Development and management of engineering and technology projects. Project proposal preparation;  
resource and cost estimating; and project planning, organizing, and controlling: network diagrams and  
other techniques. Role of project manager: team building, conflict resolution, and contract negotiations.  
Discussion of typical problems and alternative solutions. Case studies and student projects.  
*(RE) Prerequisite(s): 537 or consent of instructor.*

EM  542  Design of Experiments for Engineering Managers (3) (Video Recorded)  
SEC.  001  CRN 80010  UTSI students participating at Tullahoma or Oak Ridge  
002  CRN 80011  UTSI students participating elsewhere  
003  CRN 80012  UTK students participating at Knoxville DE classrooms  
004  CRN 80013  UTK students participating elsewhere  
TEXT: *Principles of Experimental Design and Analysis;* Alberto Garcia-Diaz & Don T. Phillips;  
Chapman & Hall; 1995. This book is out of print but instructor will provide copies  
of the textbook through Blackboard  
TIME: Tuesday & Thursday  1:00 – 3:00  E-111  
PROFESSOR: Dr. Alberto Garcia

Methodology for experiments in product, service, and process improvements. Factorial experiments,  
screening designs, variance reduction, and other selected topics for engineering managers. Taguchi  
*(RE) Prerequisite(s): Industrial Engineering 516.*

EM  600  Doctoral Research and Dissertation (3-15)  
SEC.  002  CRN 82672  Simonton

*Grading Restriction: P/NP only.*  
*Repeatability: May be repeated.*  
*Registration Restriction(s): Minimum student level – graduate.*
**INDUSTRIAL ENGINEERING**

IE 529  Applications of Linear Algebra in Engineering Systems (3)
SEC. 001  CRN 80122
TIME: Tuesday, Thursday & Friday 10:00 – 11:15 E-111
PROFESSOR: Dr. Monty Smith

Fundamental concepts of linear algebra to problems in engineering systems: steady state and dynamic systems. Geometric and physical interpretations of relevant concepts: least square problems, LU, QR, and SVD decompositions of system matrix, eigenvalue problems, and similarity transformations in solving difference and differential equations; numerical stability aspects of various algorithms; application of linear algebra concepts in control and optimization studies; introduction to linear programming. Computer projects.


*Cross-listed: (Same as Biomedical Engineering 529; Chemical and Biomolecular Engineering 529; Electrical and Computer Engineering 529; Materials Science and Engineering 529; Mechanical Engineering 529.)*

*Comment(s): Graduate standing or consent of instructor required.*

**MATERIALS SCIENCE AND ENGINEERING**

MSE 529  Applications of Linear Algebra in Engineering Systems (3)
SEC. 001  CRN 80172
TIME: Tuesday, Thursday & Friday 10:00 – 11:15 E-111
PROFESSOR: Dr. Monty Smith

Fundamental concepts of linear algebra to problems in engineering systems: steady state and dynamic systems. Geometric and physical interpretations of relevant concepts: least square problems, LU, QR, and SVD decompositions of system matrix, eigenvalue problems, and similarity transformations in solving difference and differential equations; numerical stability aspects of various algorithms; application of linear algebra concepts in control and optimization studies; introduction to linear programming. Computer projects.

Cross-listed: (Same as Biomedical Engineering 529; Chemical and Biomolecular Engineering 529; Electrical and Computer Engineering 529; Industrial Engineering 529; Mechanical Engineering 529.)

Comment(s): Graduate standing or consent of instructor required.

MATHEMATICS

MATH 443 Complex Variables (3)
SEC. 001 CRN 81278
TEXT: Complex Variables; Spiegel; Schaum's Outline McGraw Hill
TIME: Monday & Thursday 1:00 – 3:00 E-113
PROFESSOR: Dr. Horace Crater

Introduction to the theory of functions of a complex variable, including residue theory and contour integrals.
(Re) Prerequisite(s): 241 or 247.

MATH 572 Numerical Mathematics II (3)
SEC. 001 CRN 83705
TIME: Monday & Wednesday 10:00 – 12:00 E-111
PROFESSOR: Dr. Christian Parigger

Cross-listed: (CS 572.)
(De) Prerequisite(s): 571 or consent of instructor.
Students wishing to count this course toward IGMCS should enroll under Math 572, since IGMCS will count it as a Math course only.
Comments: Part II of a trilogy, part 1 was NumMathI, part 3 is PDE methods.
MECHANICAL ENGINEERING

ME 500 Thesis (1-15)
SEC. 002 CRN 80204 Abedi
004 CRN 80205 Antar
023 CRN 80230 Anusonti-Inthra
024 CRN 80231 Flandro
027 CRN 80234 Majdalani
028 CRN 80235 Moeller
029 CRN 82457 Solies
030 CRN 82458 Steinhoff
031 CRN 83678 Vakili
032 CRN 83679 Zhang

Grading Restriction: P/NP only.
Repeatability: May be repeated.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level – graduate.

ME 502 Registration for Use of Facilities (1-15)
SEC. 002 CRN 80237 Moeller

Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed.
Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated.
Credit Restriction: May not be used toward degree requirements.
Credit Level Restriction: Graduate credit only.
Registration Restriction(s): Minimum student level – graduate.

ME 529 Applications of Linear Algebra in Engineering Systems (3)
SEC. 001 CRN 80239
TIME: Tuesday, Thursday & Friday 10:00 – 11:15 E-111
PROFESSOR: Dr. Monty Smith

Fundamental concepts of linear algebra to problems in engineering systems: steady state and dynamic systems. Geometric and physical interpretations of relevant concepts: least square problems, LU, QR, and SVD decompositions of system matrix, eigenvalue problems, and similarity transformations in solving difference and differential equations; numerical stability aspects of various algorithms; application of linear algebra concepts in control and optimization studies; introduction to linear programming. Computer projects.

Cross-listed: (Same as Biomedical Engineering 529; Chemical and Biomolecular Engineering 529; Electrical and Computer Engineering 529; Industrial Engineering 529; Materials Science and Engineering 529.)

Comment(s): Graduate standing or consent of instructor required.

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<tr>
<th>ME</th>
<th>590</th>
<th>Selected Engineering Problems (3)</th>
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<tr>
<td>SEC.</td>
<td>001</td>
<td>CRN 80253 Abedi</td>
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<td></td>
<td>002</td>
<td>CRN 80254 Antar</td>
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Grading Restriction: Satisfactory/No Credit grading only.
Repeatability: May be repeated. Maximum 6 hours.
Comment(s): Enrollment limited to students in the problems option.
Registration Permission: Consent of advisor.

<table>
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<tr>
<th>ME</th>
<th>599</th>
<th>Special Topics in AE: Combustion Instability of Gas Turbine Engines (3)</th>
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<tbody>
<tr>
<td>SEC.</td>
<td>002</td>
<td>CRN 83929</td>
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(Same as AE 599 003 CRN 83298)

TIME: Monday & Wednesday 1:00 – 2:15 B-210
PROFESSOR: Dr. Joseph Majdalani

Combustion instability in gas turbines; designing for stability; passive control methods; flame dynamics in swirl injectors; vorticoacoustic flame interactions; acoustic analysis; stability prediction; active control.
Prereq: Fundamentals of Aeroacoustics, AE 562, or consent of instructor

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<tr>
<th>ME</th>
<th>600</th>
<th>Doctoral Research and Dissertation (3-15)</th>
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<td>SEC.</td>
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<td>CRN 83682 Vakili</td>
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<td>030</td>
<td>CRN 83683 Zhang</td>
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All phases of mechanical engineering, reports on current research at the University of Tennessee, Knoxville, and the University of Tennessee Space Institute.  

Grading Restriction: Satisfactory/No Credit grading only.  
Repeatability: May be repeated. Maximum 20 hours.

PHYSICS

PHYS  500 Thesis (1-15)  
SEC.  001 CRN 81467 Chen  
SEC.  003 CRN 81469 Crater  
SEC.  004 CRN 81470 Davis  
SEC.  005 CRN 81471 Parigger  
Grading Restriction: P/NP only.  
Repeatability: May be repeated.  
Credit Level Restriction: Graduate credit only.  
Registration Restriction(s): Minimum student level – graduate.

PHYS  502 Registration for Use of Facilities (1-15)  
SEC.  002 CRN 82776 Davis  
Required for the student not otherwise registered during any semester when student uses university facilities and/or faculty time before degree is completed.  
Grading Restriction: Satisfactory/No Credit grading only.  
Repeatability: May be repeated.  
Credit Restriction: May not be used toward degree requirements.  
Credit Level Restriction: Graduate credit only.  
Registration Restriction(s): Minimum student level – graduate.

PHYS  593 Independent Study (Modern Physics) (3)  
SEC.  001 CRN 81477  
TEXT: Modern Physics; Anderson  
TIME: Monday & Thursday 10:00 – 12:00 E-113  
PROFESSOR: Dr. Horace Crater  
This course will cover a variety of materials not normally offered in the academic year and will be tailored to individual student needs. This summer we anticipate offering material in modern physics and introductory quantum mechanics. This will aid students who wish to take the core physics courses (521-522) in quantum mechanics. It will be tailored to the individual students’ needs. Engineering students, including students in material science, are encouraged as well as students who wish to enter the physics program. Independently this course will serve those students preparing for the physics preliminary exam.  
Repeatability: May be repeated. Maximum 15 hours.

PHYS  600 Doctoral Research and Dissertation (3-15)  
SEC.  001 CRN 81480 Chen  
SEC.  003 CRN 81482 Crater  
SEC.  004 CRN 81483 Davis  
SEC.  005 CRN 81484 Parigger  
Grading Restriction: P/NP only.  
Repeatability: May be repeated.  
Registration Restriction(s): Minimum student level – graduate.