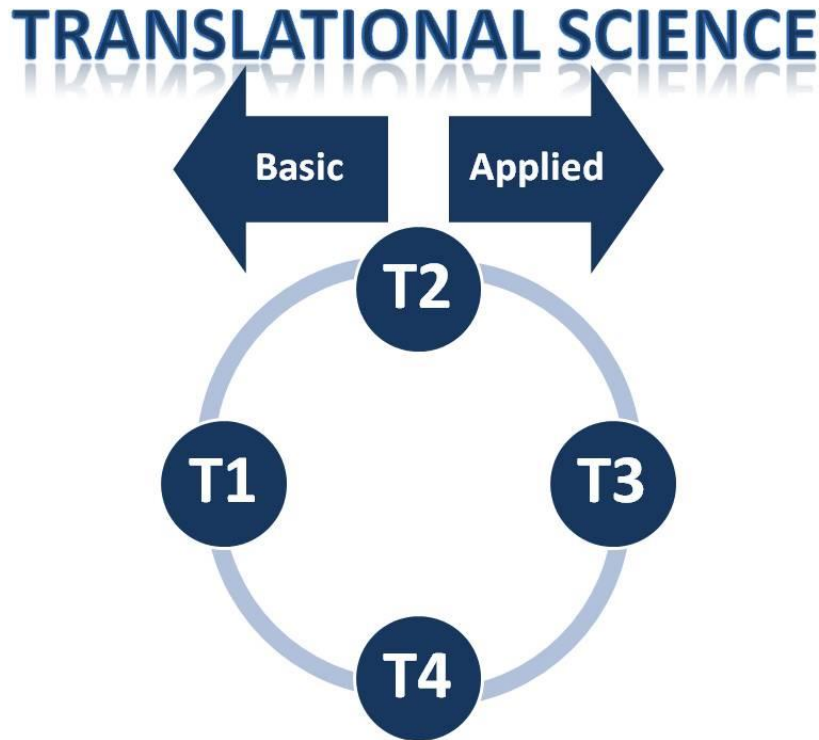


2016-2017
Program, Policies, and Guidelines

Certificate in Translational Science (CTS)



Bridging basic biomedical science to product development and testing, clinical application, community use, and health care policy and implementation

**Graduate School of Biomedical Sciences
University of Texas Health Science Center - San Antonio**

CTS Program policies and guidelines are in compliance with those established by the UT System (<http://www.utsystem.edu/>) Board of Regents (<http://www.utsystem.edu/bor/rules/>), The UTHSCSA (<http://www.uthscsa.edu/hop2000/>), and the Graduate School of Biomedical Sciences (<http://gsbs.uthscsa.edu/>). The *Catalog* (<http://catalog.uthscsa.edu/>) of The UTHSCSA provides general information and regulations that relate to students. In the event of discrepancies between MSCI-TS Program policies/guidelines and those established by UT governing components, those described by the governing components will prevail.

Please note that the policies of the CTS Program are regularly reviewed and updated; therefore, this printed copy may not be the most current. Current policies are provided in the CTS Handbook that is electronically available at the CTS website: http://iims.uthscsa.edu/ed_certificate_in_ts.html



CTS Program
IIMS/OREM – MC 7757
UT Health Science Center at San Antonio
7703 Floyd Curl Drive
San Antonio, Texas 78229-3900
210-567-4631 (voice)
210-567-4301 (fax)
E-mail: tumlinson@uthscsa.edu

The UT Health Science Center at San Antonio is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (<http://www.sacscoc.org/>) (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone number 404-679-4501) to award certificates, and baccalaureate, master's, doctoral, and professional degrees.

Certificate in Translational Science Program, Policies, and Guidelines — Graduate School of Biomedical Sciences
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Certificate in Translational Science (CTS)

Program, Policies, and Guidelines

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THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO
GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

Certificate in Translational Science (CTS)

AIMS/OBJECTIVES

The goal of this program is to provide graduate students, postdoctoral fellows, faculty, and other health care professionals with formal education in the essential components of translational science. That is, the advancement of scientific discoveries made in basic biomedical research towards clinical applications and improvements in human health. This training program will prepare professionals to integrate within interdisciplinary investigative teams for the conduct of clinical and translational research in culturally diverse settings.

The specific aims of the CTS Program are to:

- Support the intellectual environment at the UT Health Science Center at San Antonio for clinical and translational science.
- Provide fundamental curricular activities in translational science to UT Health Science Center at San Antonio students, postdoctoral trainees, clinical residents and fellows, and faculty from the Schools of Medicine, Nursing, Dentistry, Allied Health, and Graduate School of Biomedical Sciences (GSBS) as well as from local organizations that are partnered with UT Health Science Center - San Antonio.

The aims of the CTS Program will be achieved *via* participation and successful completion of required didactic coursework.

Certificate Program Governance

Oversight for the routine operations and implementation of the Certificate in Translational Science (CTS) Program will be provided by the Master of Science in Clinical Investigation and Translational Science (MSCI-TS) Program and the corresponding MSCI-TS Committee on Graduate Studies (COGS).

Admission Requirements

All students should have a sufficient educational background in the biological or biomedical sciences prior to admission to the program. It is expected that most students will have a health professional degree (*e.g.*, MD, DDS/DMD, DVM, or BS in nursing and/or allied health) or a BS/BA, MS, or PhD degree with emphasis in a health-related discipline. The following general requirements will be applied:

- A medical, dental, master's and/or baccalaureate **degree** from an accredited institution in the United States or an U.S. equivalent degree and training at a foreign institution as determined by an evaluation from the Educational Credential Evaluators, Inc. (**ECE**) or the World Education Services, Inc. (**WES**) of the foreign transcripts.
- A **grade point average** (GPA) no lower than B (3.00 in a 4.00 system) in the last 60 hours of coursework for a BS/BA degree or a GPA of at least 3.0 for applicants with a MS degree.
- A satisfactory score for the combined verbal and quantitative portions of the Graduate Record Examination (**GRE**). A minimum of 300 (1,000 for scores prior to August 2011) for the combined scores on the verbal and quantitative portions of the GRE is desirable. Scores on GRE tests taken more than five years prior to the date of application will not be accepted. *Applicants who have completed a graduate degree in a health-related discipline or an U.S. equivalent degree (if awarded from a foreign institution, in a health-related discipline) (MD, DDS, RN, or PhD) are exempted from the requirement to complete the GRE.*
- A minimum score of 560 on the paper version or 68 on the internet version of the Test of English as a Foreign Language (**TOEFL**) or 6.5 on the academic version of the International English Language Testing System (**IELTS**) for applicants from countries where English is not the native language. Scores on the TOEFL and IELTS (academic version) tests taken more than two years prior to the date of matriculation will not be accepted.

Applicant Documentation Requirements

1. **Completed and submitted GSBS online application.** The GSBS online application can be found on the GSBS homepage at <http://gsbs.uthscsa.edu/>.
2. **Official transcripts** from ALL colleges and universities attended.
3. **Course by Course Translation of foreign transcripts** to include GPA and U.S. degree equivalency by the ECE or WES agencies.
4. **Official GRE scores** taken within the past five (5) years.

5. **Official TOEFL or IELTS (academic version) scores** taken within the past two (2) years for foreign national applicants.
6. **Three (3) Letters of Recommendation** attesting to the applicant's readiness for graduate level studies in cancer prevention science. These letters should be uploaded to the Recommendation Form by the individual recommenders who will receive an email from the online application system (EMBARC) with a link to the Recommendation Form.
 1. Students from a GSBS graduate program who have a Supervising Professor are required to submit one (1) of the three (3) letters from their Supervising Professor with a statement indicating the availability and approval of release time for the completion of the CTS educational activities.
 2. Residents or fellows in an approved UT Health Science Center at San Antonio residency or fellowship program are required to submit one (1) of the three (3) letters from the departmental chair with a statement indicating the availability and approval of release time for the completion of the CTS educational activities.
 3. UT Health Science Center at San Antonio faculty and staff are required to submit one of the three (3) letters from their authorized supervisor with a statement indicating the availability and approval of release time for the completion of the CTS educational activities.
7. A **Statement of Purpose (a.k.a. Personal Statement)** (1-2 pages) that includes a brief description of the applicant's background, long term research and/or career goals, and an indication of the basis for application into the CTS Program including how this program fits into the applicant's career objectives. The Statement of Purpose should be submitted with the on-line application to the GSBS.
8. A **current curriculum vitae**. This should be submitted with the on-line application to the GSBS.
9. A **copy of current visa** for foreign national applicants.
10. **Copy of U.S. Medical License/Certificate** for licensed health care professionals.

Official test scores, transcripts, and foreign transcript translations, mentioned above, should be sent to:

Registrar's Office-Graduate Admissions MSC 7702
The UT Health Science Center at San Antonio
7703 Floyd Curl Drive
San Antonio, Texas 78229-3900

gsprospect@uthscsa.edu
Phone: 210-567-2667

Applicants should utilize the [checklist](#) of required documentation for admission that is provided in the Appendix of this Handbook.

All of the **required** information previously discussed **must** be submitted in order for an applicant to be considered by the MSCI-TS Student Admissions Committee. Requests for an exemption to any of these general admission requirements should be addressed to the CTS Program Director and sent directly to the CTS Academic Coordinator at the address below.

**Academic Coordinator
CTS Program
Room 7.742F (MED)
IIMS/OREM - MC 7757
UTHSCSA
7703 Floyd Curl Drive
San Antonio, Texas 78229-3900**

Application Process

Application. An [online application](http://gsbs.uthscsa.edu/) for admission into the CTS Program must be processed through the UT Health Science Center - San Antonio Graduate School of Biomedical Sciences (GSBS). This application is available at: <http://gsbs.uthscsa.edu/>.

As described in the online application for admission into the GSBS, official transcripts from **ALL** colleges and universities attended by the applicant are required; these must be submitted in sealed institutional envelopes. In addition, all transcripts from foreign institutions must be translated and submitted by one of the above mentioned approved foreign credentialing evaluation agencies. Official GRE and TOEFL test scores must also be submitted

Deadlines. The CTS Program has an open application policy and will accept applications for admission at any time. However, *GSBS deadlines* (for submission of application and required documentation) for matriculation in a specific academic semester are listed below.

- Fall Semester April 1
- Spring Semester October 1

Applicants will have the responsibility for the timely submission of application materials in order to meet the deadlines established by the GSBS for registration and course enrollment.

Application Review. Operational processes used by the CTS Program are provided by the Master of Science in Clinical Investigation and Translational Science (MSCI-TS) Committee on Graduate Studies (COGS). Thus, after receipt of the online application together with all of the required admission materials outlined above, the MSCI-TS Admissions Committee will review and provide a recommendation to the MSCI-TS COGS.

Each application will be individually reviewed to consider: the applicant's undergraduate and graduate course work and degree(s), scores on the GRE and TOEFL or IELTS (academic version), if

applicable tests, research experience, and all other required documentation submitted with the online application. The admission decision is based on the personal statement as well as record of academic achievement, research experience, coursework, and letters of recommendation.

After sequential review by the MSCI-TS COGS and the GSBS, applicants will be formally notified of the outcome by the Graduate Dean of the UT Health Science Center at San Antonio. The MSCI-TS COGS recommends admission to the most highly qualified applicants regardless of ethnicity, gender, age, sexual orientation, nation of origin, or disability.

After acceptance, students may complete the requirements for certificate completion while enrolled as either a full-time or part-time student.

Graduate students who are enrolled in the Master of Science in Clinical Investigation and Translational Science (MSCI-TS) Program or the Certificate in Cancer Prevention (CCP) Program are ineligible to concurrently enroll in the CTS Program. However, coursework accomplished towards the Certificate in Translational Science may be applied to the MSCI-TS degree or the CCP.

Tuition and Fees

Tuition and Fees. Rates for in-state and out-of-state graduate student tuition and fees are established by the institution and subject to adjustment. A summary of current rates is provided in the Appendix.

Student Pathways in the CTS Program

Regular Students. After acceptance as a candidate working towards the certificate, students may undertake course requirements for graduation while enrolled as either a full-time or part-time student.

Full-Time students. Full-time students are enrolled in **at least eight (8)** semester credit hours (SCH) per semester during the Fall and Spring semesters.

Part-time Students. Part-time students are enrolled for **minimum of four (4)** credit hours per semester during the Fall and Spring semesters.

UT Health Science Center at San Antonio Faculty and Staff as Students in the CTS Program. UT Health Science Center at San Antonio faculty and staff may apply for admission in the CTS Program. The amount of course work that can be taken by faculty or staff in a given semester is subject to the ‘quantity of work’ rules outlined in the current UT Health Science Center at San Antonio [Catalog](#) and [Handbook of Operating Procedures](#) (HOP).

Non-Degree Seeking Students in the GSBS. Non-degree seeking students may enroll in courses and receive GSBS course credit *without* matriculation (admission) into a graduate program. For those not already matriculated into other GSBS graduate programs, an [on-line application](#) must be submitted to the GSBS for approval by the Dean [this would also include students who are matriculated in other UT Health Science Center at San Antonio Schools (*e.g.*, Medical, Dental or Nursing Schools or School of Health Professions) as well as faculty, staff, or others]. The appropriate Course Director must

approve the enrollment of any non-degree seeking student in their course and sign course cards (provided by the GSBS Dean’s office).

Course credit earned as a non-degree seeking student can be applied towards a Certificate in Translational Science following formal application and acceptance into the CTS Program. Note that enrollment as a non-degree seeking student in the GSBS is limited to four (4) semesters. Additional details about [non-degree seeking students](#) are available at:

[UT Health Science Center at San Antonio GSBS website](#)

Certificate Requirements

Coursework. Completion of the CTS Program requires the satisfactory completion of required and elective coursework. Twelve (12) semester credit hours (SCH) of didactic coursework are required to obtain the CTS. All course-related rules established by the MSCI-TS Program and listed in the [MSCI-TS Handbook](#) will be endorsed and followed by the CTS Program.

Required Courses. Students in the CTS Program must successfully complete the following didactic courses.

TSCI 5070 (2 SCH)	<i>Responsible Conduct of Patient-Oriented Clinical Research</i>
TSCI 5071 (2 SCH)	<i>Patient-Oriented Clinical Research Methods -I</i>
TSCI 5072 (2 SCH)	<i>Patient-Oriented Clinical Research Biostatistics - I</i>
TSCI 6001 (1 SCH)	<i>Introduction to Translational Science</i>
TSCI 6101 (1 SCH)	<i>Topics in Translational Science</i>

Elective Courses. Diverse elective courses are available to CTS graduate students. These courses may be taken in any semester when offered and include:

TSCI 5050 (1 SCH)	<i>Introduction to Data Science</i>
TSCI 5073 (1 SCH)	<i>Integrating Molecular Biology with Patient-Oriented Clinical Research</i>
TSCI 5074 (2 SCH)	<i>Data Management, Quality Control, and Regulatory Issues</i>
TSCI 5075 (2 SCH)	<i>Scientific Communication</i>
TSCI 5076 (1 SCH)	<i>Introduction to Informatics</i>
TSCI 5077 (1-3 SCH)	<i>Practicum in Translation Science</i>
TSCI 5078 (1 SCH)	<i>Introduction to Intellectual Property, Tech Transfer, & Communication</i>

TSCI 5079 (.5 SCH)	<i>Practicum in Intellectual Property, Tech Transfer & Communication</i>
TSCI 5080 (1 SCH)	<i>Practicum in Integrating Molecular Biology with Patient-Oriented Clinical Research</i>
TSCI 6060 (2 SCH)	<i>Patient-Oriented Clinical Research Methods -2</i>
TSCI 6061 (2 SCH)	<i>Patient-Oriented Clinical Research Biostatistics - 2</i>
TSCI 6064 (1 SCH)	<i>Grantsmanship and Peer Review</i>
TSCI 6065 (2 SCH)	<i>Health Services Research</i>
TSCI 6066 (1 SCH)	<i>Instrument Development and Validation</i>
TSCI 6067 (1 SCH)	<i>Genetics and Genetic Epidemiology</i>
TSCI 6068 (1 SCH)	<i>Cross Cultural Adaptation of Research Instruments</i>
TSCI 6100 (1 SCH)	<i>Practicum in IACUC Procedures</i>
TSCI 6102 (1 SCH)	<i>Practicum in IRB Procedures</i>
TSCI 6103 (1 SCH)	<i>Selected Topics in Advanced Research Ethics</i>
TSCI 6105 (1 SCH)	<i>Topics in Cancer Prevention</i>
TSCI 6106 (.5 – 1 SCH)	<i>Practicum in Cancer Prevention Science</i>

Timeline for Coursework. A typical schedule for a full-time CTS student is provided in the Appendix of this Handbook.

Coursework towards a Certificate in Translational Science must be accomplished within three (3) or less years prior to request for certification. Exceptions to this requirement will be considered by the MSCI-TS COGS on a case-by-case basis. A written request for exemption must be submitted to the CTS Program Director through the CTS Academic Coordinator and should include a brief description of the reason(s) for the request.

Grade Requirement. As detailed by the MSCI-TS Program, student performance in MSCI-TS courses is assessed on a satisfactory (S) / unsatisfactory (U) basis. Any student who receives less than a Satisfactory (S) assessment in any CTS required course will be required to re-take the course and receive a passing grade during the next academic year. In the event of a second failure in the same course, the MSCI-TS COGS will provide a recommendation to the GSBS Dean as to whether or not the student should be dismissed from the CTS Program.

Exemption of a Required Course. Exemptions to the requirement for completion of a *required* course will be considered by the MSCI-TS COGS on a case-by-case basis. A written request for exemption must be submitted to the CTS Program Director through the CTS Academic Coordinator and should include a brief description of the reason(s) for the request. In the event that prior coursework

conducted at another institution is the basis for the request, details regarding the content of the substitute course(s) must be provided. In the event that prior coursework conducted at another institution is the basis for the request the following supporting documents are required in addition to the written request.

- Official copy of the transcript from the institution where the course was taken, the transcript should include the number of credit hours earned and indicate successful completion of the course.
- Copy of the course description from the catalogue in effect when the course was taken.
- Copy of the course syllabus during the semester taken, if available.

MSCI-TS COGS approval of a request for exemption to a required course does not automatically result in approval of course credit hours towards the CTS degree. Transfer of coursework for credit is described below.

Transfer of Coursework for Credit. If a student has successfully completed graduate level coursework that is duplicative of *required* CTS courses, it is possible that transfer of course credit may be allowed. A written request for consideration of transfer of course credit in substitution for a given CTS course must be submitted to the CTS Program Director through the CTS Academic Coordinator. This request should include a comprehensive description of the prior course detailing when and where completed, course contact hours, and details of course content and objectives. The request should include an official transcript that indicates successful course completion and the grade issued. If the transfer of credit request is approved by the MSCI-TS COGS, the program will prepare a request for transfer of course credit (on the GSBS form) and submit to the GSBS for consideration/approval by the Dean. In no case will the allowable semester credit hour(s) of transfer for a given course exceed that of the corresponding MSCI-TS course. No more than 3 semester credit hours may be transferred towards the completion of a Certificate in Translational Science.

Class Attendance and Makeup Policy

Attendance. Attendance at scheduled classes and examinations is crucial to meeting course and program objectives. Therefore, regular attendance in class is expected of each student. Attendance is defined as being present within 15 minutes after the scheduled beginning of the class and until 15 minutes before the scheduled ending of the class.

Excused absences may be granted by the Course Director in cases such as formal presentations at scientific meetings, illness, or personal emergency. Excused absences are considered on an individual basis and require electronic communication with the Course Director to request an excused absence. The email request to the Course Director for consideration of an excused absence must provide details regarding the circumstances and specific dates. It is expected that students will provide *advanced notice* of absence for scheduled events.

Repeated unexcused absences make it impossible to achieve course objectives. Thus, if a student has excessive unexcused absences in a given course, they will automatically receive a grade of *unsatisfactory* unless *makeup* has been approved by the Course Director (see below). Allowable unexcused absences will be determined by the credit hours of the course as follows:

Course (Semester Credit Hours)	Allowable Unexcused Absences
3	3
2	2
1	1

Absence Makeup. Makeup of absences (both excused and unexcused) is allowed at the discretion of the Course Director.

Other CTS Program Requirements



Laptop Computers. A required class (TSCI 5072) requires a laptop computer that is operational in a wireless mode. Software required for this course includes:

- Microsoft Office Suite (can be purchased at the UTHSCSA bookstore with a student ID)
- R & R Studio (Open source, free, latest version)

<https://www.rstudio.com/products/RStudio/>

<https://www.r-project.org/>

Laptops with an Apple Mac-based operating system must be able to also perform as a PC-based operating system.

All laptops will connect to The UTHSCSA network via the HSCwave broadcast wireless connection. Authentication for wireless use is based on The UTHSCSA domain username and password. Verification of proper operation **prior** to the start of class is highly recommended.

Assistance is available thru the IMS Service Desk (210-567-7777 or ims-servicedesk@uthscsa.edu). Assistance is also available at the IMS Student Support Center (ALTC 106).

Ethics/Professionalism Policy

The CTS Program expects all students to exhibit the highest standards of conduct, honesty, and professionalism. Academic misconduct includes activities that undermine the academic integrity of the institution. The University may discipline a student for academic misconduct as outlined in the UT Health Science Center at San Antonio [Catalog](#) and [Handbook of Operating Procedures](#). Academic misconduct may involve human, hard-copy, or electronic resources. Policies of academic misconduct apply to all course-, department-, school-, and university-related activities including conferences and

off-campus performances. All cases of academic misconduct must be reported to the Dean of the Graduate School of Biomedical Sciences (GSBS) and the seriousness of the violation may be taken into account in assessing a penalty. Academic misconduct includes, but is not limited to, the following:

- ***Cheating***. Any attempt to use or provide unauthorized assistance, materials, information, or access in any form and in any academic exercise or environment is considered cheating and is expressly forbidden.
- ***Fabrication***. A student must not falsify or invent any information or data including, but not limited to, records or reports, data analyses, and citation to the sources of information.
- ***Plagiarism***. Plagiarism is defined as presenting someone else's work as one's own. Ideas or materials taken from another source for either written or oral use must be fully acknowledged. The adoption or reproduction of ideas, opinions, theories, formulas, graphics, or research results of another person without acknowledgment is expressly forbidden. Credit must be given to the originality of others whenever:
 - Quoting the works of another
 - Using another person's ideas, opinions, or theories
 - Paraphrasing the words, ideas, opinions, results, or theories of others
 - Borrowing facts, statistics, or illustrative material
 - Offering materials assembled or collected by others

Facilitating Academic Dishonesty. A student must not intentionally or knowingly help another student commit an act of academic misconduct, nor allow another student to use his/her work or resources to commit an act of misconduct.

Completion of the CTS Program

Recommendation for Granting the Certificate in Translational Science. A graduate student must be accepted into the CTS Program to be eligible to receive a certificate. Upon satisfactory completion of all required didactic and elective coursework, the CTS student will complete and submit the [CTS Request for Certification](#) form to the MSCI-TS Academic Coordinator for review and approval by the MSCI-TS COGS. Once approved by the MSCI-TS COGS, the Chair of the MSCI-TS COGS will then submit a recommendation form to the *Graduate Faculty Council* (GFC) of the Graduate School of Biomedical Sciences (GSBS) through the Dean of the GSBS for further consideration and approval.

Time-to-Certificate. The CTS Program can be completed within 1 year of study. Some students may require 2 to 3 years to complete certificate requirements. If a CTS student has not completed the necessary coursework within 3 years, the MSCI-TS COGS Chair will form a special committee to review progress with the student. The special committee's responsibility will be to either recommend a course of action to expedite completion or recommend termination of the enrollment of the student in the program.

Helpful Online Connections

CTS Program http://iims.uthscsa.edu/ed_certificate_in_ts.html

CTS Forms http://iims.uthscsa.edu/ed_certificate_in_ts_forms

MSCI-TS Course Schedules <http://iims.uthscsa.edu/sites/iims/files/Education/MSCI/Course-Schedule.pdf>

Graduate School of Biomedical Sciences (GSBS) <http://gsbs.uthscsa.edu/>

GSBS Application for Admission <http://gsbs.uthscsa.edu/>

GSBS Academic Calendar <http://students.uthscsa.edu/registrar/2015/07/academic-calendar-graduate-school-of-biomedical-sciences/>

GSBS Syllabus Depot <http://gsbssyllabus.uthscsa.edu/>

CANVAS <http://www.uthscsa.edu/university/canvas>

UTHSCSA Catalog <http://catalog.uthscsa.edu/>

UTHSCSA Handbook of Operating Procedures (HOP) <http://www.uthscsa.edu/hop2000/>

Institute for the Integration of Medicine and Science <http://iims.uthscsa.edu/>

Appendices

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Master of Science in Clinical Investigation and Translational Science (MSCI-TS) Committee on Graduate Studies (COGS)

Donald M. Dougherty, PhD
MSCI-TS COGS Chair

Meyad Baghezza, BA, CIP
Research Regulatory Program

Alex Bokov, PhD
Epidemiology & Biostatistics

Carrie Jo Braden, RN, PhD
Nursing

Leonid Bunegin, BSc
Anesthesiology

Andrew P. Cap, MD, PhD, FACP
San Antonio Military Medical Center (SAMMC)
Institute of Surgical Research/Clinical Investigation Fellowship Program

David P. Cappelli, DMD, PhD, MPH
Comprehensive Dentistry

Robert A. Clark, MD
Medicine

Donald M. Dougherty, PhD
Psychiatry/Alcohol & Drug Abuse

Jonathan Gelfond, MD, PhD
Epidemiology & Biostatistics

Goutam Ghosh-Choudhury, PhD
Medicine/Renal Diseases

Helen P. Hazuda, PhD
Medicine/Clinical Epidemiology

Teresa Johnson-Pais, PhD
Urology

Donna M. Lehman, PhD
Medicine/Clinical Epidemiology

Philip T. LoVerde, PhD
Biochemistry/Pathology

Linda M. McManus, PhD
Biochemistry/Pathology

Polly H. Noel PhD
Medicine/General Medicine

Bill Sanns, BS
Epidemiology & Biostatistics

Joseph O. Schmelz, PhD
Institutional Review Board

Z. David Sharp, PhD
Molecular Medicine

Maureen J. Simmonds, PhD, PT
Physical Therapy

Kimberly K. Summers, PhD
Research Regulatory Programs

Rudy J. Trevino, MS, CPIA
Research Regulatory Program

Gail Tomlinson, MD, PhD
Pediatrics/Hematology-Oncology

Chen-Pin Wang, PhD
Epidemiology & Biostatistics

Michael J. Wargovich, PhD
Molecular Medicine
Medicine/CTRC

Typical schedule for a One Year CTS Student

Year 1 – Fall Semester

TSCI 5070 (2 SCH) – Responsible Conduct of Patient Oriented Clinical Research
TSCI 5071 (2 SCH) – Patient Oriented Clinical Research Methods -1
TSCI 5072 (2 SCH) – Patient Oriented Clinical Research Biostatistics -1
TSCI 6001 (1 SCH) – Introduction to Translational Science

Year 1 – Spring Semester

TSCI 6101 (1 SCH) - Topics in Translational Science
TSCI electives (4 SCH) - Elective coursework

CTS Elective Courses (may be taken in any semester when offered)

TSCI 5050 (1 SCH) – Introduction to Data Science
TSCI 5073 (1 SCH) – Integrating Molecular Biology with Patient Oriented Clinical Research
TSCI 5074 (2 SCH) – Data Management, Quality Control, and Regulatory Issues
TSCI 5075 (2 SCH) – Scientific Communications
TSCI 5076 (1 SCH) – Introduction to Informatics
TSCI 5077 (1 SCH) – Practicum in Translational Science
TSCI 5078 (1 SCH) – Intro to Intellectual Property, Tech Transfer, & Communication
TSCI 5079 (.5 SCH) – Practicum in Intellectual Property, Tech. Transfer, & Communication
TSCI5080 (1 SCH) – Practicum in Integrating Molec Biology with Pt-Orient. Clin. Research
TSCI 6060 (2 SCH) – Patient Oriented Clinical Research Methods -2
TSCI 6061 (2 SCH) – Patient Oriented Clinical Research Biostatistics -2
TSCI 6064 (1 SCH) – Grantsmanship and Peer Review
TSCI 6065 (2 SCH) – Health Services Research
TSCI 6066 (1 SCH) – Instrument Development and Validation
TSCI 6067 (1 SCH) – Genetics and Genetic Epidemiology
TSCI 6068 (1 SCH) – Cross Cultural Adaptation of Research Instruments
TSCI 6069 (2 SCH) – Statistical Issues, Planning, & Analysis of Contemporary Clin. Trials
TSCI 6070 (2.5 SCH) – Biostatistics Methods for Longitudinal Studies
TSCI 6100 (1 SCH) – Practicum in IACUC Procedures
TSCI 6102 (1 SCH) – Practicum in IRB Procedures
TSCI 6103 (1 SCH) – Selected Topics in Advanced Research Ethics
TSCI 6105 (1 SCH) – Topics in Cancer Prevention
TSCI 6106 (.5 - 1 SCH) – Practicum in Cancer Prevention

Twelve (12) semester credit hours (SCH) are required to obtain the Certificate in Translational Science (CTS). Students **must** be admitted to the CTS program to be eligible for certification.

**CTS Program
2016-2017
Tuition and Fee Breakdown**

This is only an estimate - Tuition and Fees are subject to change without notice

Breakdown of Cost	Cost
Tuition - Texas Resident (per semester credit hour)	50.00
Designated Deregulated Tuition (per semester credit hour)	9.65
Tuition - Non-Texas Resident (per semester credit hour)	458.00
Designated Deregulated Tuition (per semester credit hour)	68.65
Differential Tuition (per semester credit hour)	50.00
Designated Tuition (per semester credit hour)	46.00
Fitness Center Fee	240.00
Student Service Fee	110.00
Medical Service Fee	79.88
Library Fee	150.00
Late Registration Fee	100.00
Graduation Fee (Semester Graduating)	100.00
Student Health Insurance	1,092.50

Total semester credit hours (sch) to complete program is 12 sch

Texas Resident *(Total Does Not Include Student Insurance):*

Tuition (per sch):	600.00
Designated Deregulated Tuition (per sch):	115.80
Differential Tuition (per sch):	600.00
Designated Tuition (per sch):	552.00
*Fitness Center Fee (2 semesters):	480.00
Student Service Fee (2 semesters):	220.00
*Medical Service Fee (2 semesters):	159.76
*Library Fee (2 semesters):	300.00
Graduation Fee (One-time Fee--Grad Semester):	100.00
Total <i>(Based on Completion within 2 Semesters of Enrollment):</i>	3,127.56

Non-Texas Resident *(Total Does Not Include Student Insurance):*

Tuition (per sch):	5,496.00
Designated Deregulated Tuition (per sch):	823.80
Differential Tuition (per sch):	600.00
Designated Tuition (per sch):	552.00
*Fitness Center Fee (2 semesters):	480.00
Student Service Fee (2 semesters):	220.00
*Medical Service Fee (2 semesters):	159.76
*Library Fee (2 semesters):	300.00
Diploma Fee (One-time Fee--Grad Semester):	100.00
Total <i>(Based on Completion within 2 Semesters of Enrollment):</i>	8,731.56

* Increasing the number of semesters needed to complete the program will increase the cost.

Additional Costs Not Included: Purchase of laptop, software, books, and supplies

“Click form example below to be directed to the Forms website”

**Master of Science in Clinical Investigation and Translational Science (MSCI-TS) Program
Certificate in Translational Science (CTS) Program**

CHECKLIST OF REQUIRED DOCUMENTATION FOR APPLICATION

See CTS Handbook at
http://iims.uthscsa.edu/ed_certificate_in_ts_handbook
for full program requirements

- Submit an on-line application to The UTHSCSA Graduate School:** <http://gsbs.uthscsa.edu/>
- Official transcripts** of **ALL** foreign colleges/universities from the ECE or WES credentialing agencies should be sent from the credentialing agency (in a sealed envelope) to The UTHSCSA Registrar's Office as directed in the on-line application instructions. The translation must be from the ECE or WES credentialing agencies which part of the NACES organization which has been approved by the UTHSCSA Registrar's Office.
- Official translation of foreign transcripts including GPA** of **ALL** foreign colleges/universities from credentialing agencies should be sent from the credentialing agency (in a sealed envelope) to The UTHSCSA Registrar's Office as directed in the on-line application. The translation must be from a credentialing agency approved by the UTHSCSA Registrar's Office.
- Three Letters of Recommendation (LOR)** should attest to the applicant's readiness for graduate level studies in translational science and be addressed to Dr. Linda McManus, CTS Program Director. ***If a matriculated graduate student has a Supervising Professor or Program/Track Director, one letter must be provided by this individual.***
(Note: LOR's should be uploaded to your on-line application by the references you named in your on-line application.)
 - LOR1 – Reference: _____
 - LOR2 – Reference: _____
 - LOR3 – Reference: _____
- General Record Examination (GRE)** scores (exam taken within the past five years) sent directly to The UTHSCSA from the Educational Testing Service (ETS). **UTHSCSA code: 6908** *(Note: The GRE is not required for applicants who have completed a graduate degree in a health related discipline, i.e., a MSN, MD, DDS, or PhD.)*
- Test of English as a Foreign Language (TOEFL) or the academic version of the Test of English as a Foreign Language (IELTS)** scores (test taken within the past two years) sent directly to The UTHSCSA from the ETS. **UTHSCSA code: 6908** *(Note: The TOEFL or IELTS (academic version) is required for all non-US citizens whose first language is not English.)*

In addition to the above, the documents listed below are required and should be uploaded to your online application.

- Curriculum vitae (CV)** of applicant.
- Statement of Purpose** (Includes a brief description of the applicant's background, long term career goals, and an indication of the basis for application into the CTS Program.)

Revised: 08/24/2016

“Click form example below to be directed to the Forms website”

Master of Science in Clinical Investigation & Translational Science (MSCI-TS) Program

Certificate in Translational Science (CTS) Program

Student Program Status Checklist

The information contained below is subject to change at the Program's and/or Instructor's discretion without notice.

Course Catalog Number & Title	Semester Course Schedule	Pre-Req
YEAR 1 (FALL SEMESTER):		
<input type="checkbox"/> TSCI 5070 (2.0 sch): Resp. Conduct of Pt Oriented Clin Research	Mondays, 3-5 p.m.	---
<input type="checkbox"/> TSCI 5071 (2.0 sch): Pt Oriented Clinical Research Methods – 1	Tuesdays, 3-5 p.m.	---
<input type="checkbox"/> TSCI 5072 (2.0 sch): Pt Oriented Clinical Research Biostats – 1	Thursdays, 3-5 p.m.	---
<input type="checkbox"/> TSCI 6001 (1.0 sch): Introduction to Translational Science	Tuesdays, 3-5 p.m.	---

YEAR 1 (SPRING SEMESTER):

<input type="checkbox"/> TSCI 6101 (1.0 sch): Topics in Translational Science	TBA	---
<input type="checkbox"/> 4.0 sch of Electives (below)	All Semesters	---
<input type="checkbox"/> Submitted Certification Request Form to Program (12 sch are required for CTS Program Graduation)		

CTS Program Electives Course Catalog Number & Title	Semester Course Schedule	Pre-Req
<input type="checkbox"/> TSCI 5050 (1.0 sch): Introduction to Data Science	All Semesters (TBA)	---
<input type="checkbox"/> TSCI 5073 (1.0 sch): Integrat Molec Bio w/Pt Orient Clin Res	Spring Semester (TBA)	---
<input type="checkbox"/> TSCI 5074 (2.0 sch): Data Mgmt, Quality Control & Reg Issues	Spring Semester Tuesdays, 3-5 p.m.	---
<input type="checkbox"/> TSCI 5075 (2.0 sch): Scientific Communication	Fall Semester Wednesdays, 3-5 p.m.	---
<input type="checkbox"/> TSCI 5076 (2.0 sch): Introduction to Informatics	Spring Semester (TBA)	---
<input type="checkbox"/> TSCI 5077 (1.0 sch): Practicum in Translational Science	All Semesters (TBA)	---
<input type="checkbox"/> TSCI 5078 (1.0 sch): Intro to Intellectual Property, Tech Transfer & Communication	All Semesters (TBA)	---
<input type="checkbox"/> TSCI 5079 (1.0 sch): Practicum in Intellectual Property, Tech Transfer & Communication	All Semesters (TBA)	---
<input type="checkbox"/> TSCI 5080 (1.0 sch): Practicum in Integrat Molec Bio w/Pt-Orient Clin Res	Fall Semester (TBA)	TSCI 5073
<input type="checkbox"/> TSCI 6060 (2.0 sch): Pt Oriented Clinical Research Methods – 2	Spring Semester Mondays, 3-5 p.m.	TSCI 5071
<input type="checkbox"/> TSCI 6061 (2.0 sch): Pt Oriented Clinical Research Biostats – 2	Spring Semester Thursdays, 3-5 p.m.	TSCI 5072
<input type="checkbox"/> TSCI 6064 (1.0 sch): Grantsmanship & Peer Review	Spring Semester (Bi-Wkly) Mondays, 11:00-1:00 p.m.	---
<input type="checkbox"/> TSCI 6065 (2.0 sch): Health Services Research	Fall Semester Thursdays, 3-5 p.m.	TSCI 5071 TSCI 6060
<input type="checkbox"/> TSCI 6066 (1.0 sch): Instrument Development & Validation	Spring Semester (Bi-Wkly) Thursdays, 3-5 p.m.	---
<input type="checkbox"/> TSCI 6067 (1.0 sch): Genetics & Genetic Epidemiology	Spring Semester Wednesdays, 3-5 p.m.	---
<input type="checkbox"/> TSCI 6068 (1.0 sch): Cross-Cultural Adapt of Res Instruments	Spring Semester (Bi-Wkly) Wednesdays, 3-5 p.m.	---
<input type="checkbox"/> TSCI 6069 (2.0 sch): Statistical Issues, Planning & Analysis of Contemporary Clinical Trials	Spring Semester (TBA)	TSCI 5072 TSCI 6061
<input type="checkbox"/> TSCI 6070 (2.5 sch): Biostatistics Methods for Longitudinal Studies	All Semesters Wednesdays, 1-4 p.m.	TSCI 5072 TSCI 6061
<input type="checkbox"/> TSCI 6100 (1.0 sch): Practicum in IACUC Procedures	All Semesters Wednesdays (TBA)	---
<input type="checkbox"/> TSCI 6102 (1.0 sch): Practicum in IRB Procedures	All Semesters Tuesdays (TBA)	---
<input type="checkbox"/> TSCI 6103 (2.0-3.0 sch): Topics in Adv Research Ethics	All Semesters (TBA)	---
<input type="checkbox"/> TSCI 6105 (1.0 sch): Topics in Cancer Prevention	Fall Semester (TBA)	---
<input type="checkbox"/> TSCI 6106 (.5 - 1.0 sch): Practicum in Cancer Prevention Science	All Semesters (TBA)	---

Revised: 08/24/2016

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