LAJ Curricula Committee Meeting Agenda  
April 15, 2015  

*Items 1-11 require committee and LAJ faculty approval; Items 12-25 require committee approval only.*

### Part I

1. NEW COURSE – Classics – SKT 0001  
2. NEW COURSE – Classics – SKT 0002  
3. NEW COURSE – Classics – SKT 0003  
4. NEW COURSE – Classics – SKT 0120  
5. NEW COURSE – Drama & Dance – DR 0008  
6. NEW COURSE – Drama & Dance – DNC 0075  
7. NEW COURSE – Drama & Dance – DNC 0077  
8. NEW COURSE – Physics and Astronomy – AST 0031  
9. NEW COURSE – Physics and Astronomy – AST 0032  
10. NEW COURSE – Physics and Astronomy – PHY 0062  
11. NEW MAJOR – Undergraduate Second Major in Education

### Part II

12. CHANGE PROGRAM – Minor in Asian American Studies  
13. COURSE CHANGE DESCRIPTION – Drama & Dance – DNC 0071  
14. COURSE CHANGE DESCRIPTION – GRALL – HEB 0001  
15. COURSE CHANGE DESCRIPTION – GRALL – HEB 0002  
16. COURSE CHANGE DESCRIPTION – GRALL – HEB 0003  
17. COURSE CHANGE DESCRIPTION – GRALL – HEB 0004  
18. COURSE CHANGE DESCRIPTION – GRALL – HEB 0021  
19. COURSE CHANGE DESCRIPTION – GRALL – HEB 0022  
20. COURSE CHANGE DESCRIPTION – GRALL – HEB 0121  
21. COURSE CHANGE DESCRIPTION – GRALL – HEB 0122  
22. COURSE CHANGE TITLE & DESCRIPTION – Physics and Astronomy – PHY 0061  
23. COURSE CHANGE TITLE & DESCRIPTION – Physics and Astronomy – PHY 0064  
24. COURSE CHANGE TITLE, DESCRIPTION & NUMBER – Physics and Astronomy – PHY 0082  
25. CHANGE PROGRAM – Psychology (Cognitive and Brain Science)
Part I

Item 1. NEW COURSE - Classics

From: Anne Mahoney, 7-4643, anne.mahoney@tufts.edu
Department Chair: Vickie Sullivan, 7-3213, vickie.sullivan@tufts.edu

SKT 0001 Elementary Sanskrit 1

Bulletin Description: Introduction to the phonology, morphology, and syntax of classical Sanskrit, and the Devanāgari writing system, through reading, writing, listening, and speaking. Relationship of Sanskrit to Greek, Latin, English, and modern Indian languages.

Next Anticipated Offering: every fall; on schedule for Fall 2015 as special topics

Rationale. Sanskrit is the third great ancient Indo-European language, alongside Greek and Latin. Its position in South Asian culture is similar to that of Latin in European culture. Students working on Indo-European linguistics, on any aspect of South Asian culture, or on comparative ancient histories will find Sanskrit both useful and fascinating. Many of the fundamental texts for Hinduism and Buddhism are originally in Sanskrit. The two great Indian epics, the Mahābhārata and the Rāmāyaṇa, are directly comparable to the Iliad and Odyssey in the Western tradition, not only because of the way all four texts came to exist, but because of their continuing relevance; these texts, along with the Rig Veda, are important for the study of Indo-European linguistics and culture. Sanskrit drama has a long history as literature and performance, and some of the most famous plays are accessible to advanced students. Sanskrit 1 has been offered as a special-topics course in classics for 8 years, and subsequent semesters have been offered as directed-study courses. Although enrollments have been small, nonetheless, several Liberal Arts undergraduates have taken at least one semester; one Engineering undergraduate and one Liberal Arts student each took 6, and one graduate student in classics took 4. Sanskrit grew out of the successful Indo-European Linguistics course. Students who took that class the first time it was offered were curious about Sanskrit, and asked if it could be taught. While only one of them eventually took the class, this student took three semesters, and ended up using a Sanskrit text alongside Latin and English texts in an interdisciplinary honors thesis. Most students who have taken Sanskrit have been classics majors (usually in the Greek-and-Latin track), though some come to the subject through the South Asian community or through work on ancient India in other classes. Enrollments and previous course numbers are as follows: term, course, title, enrollment Fall 2007 CLS 0091 Elementary Sanskrit 1 1 Spring 2008 CLS 0092 Elementary Sanskrit 2 1 Fall 2008 CLS 0091 Elementary Sanskrit 1 1 CLS 0092 Elementary Sanskrit 3 1 Spring 2009 CLS 0092 Elementary Sanskrit 2 1 Fall 2009 CLS 0191 Elementary Sanskrit 1 1 Spring 2010 CLS 0192 Elementary Sanskrit 2 1 Fall 2010 CLS 0183 Elementary Sanskrit 1 3 CLS 0191 Elementary Sanskrit 3 1 Spring 2011 CLS 0192 Elementary Sanskrit 2 3 CLS 0191 Sanskrit Readings 1 Fall 2011 CLS 0183 Elementary Sanskrit 1 1 CLS 0191 Intermediate Sanskrit 1 3 CLS 0192 Sanskrit Readings 1 Spring 2012 CLS 0192 Sanskrit Readings: Rig Veda 3 Fall 2012 CLS 0183 Elementary Sanskrit 1 3 CLS 0191 Sanskrit Readings: Kalidasa 1 Spring 2013 CLS 0192 Elementary Sanskrit 2 1 CLS 0192 Sanskrit Readings: Drama 1 Fall 2013 CLS 0183 Elementary Sanskrit 1 1 Spring 2014 CLS 0192 Elementary Sanskrit 2 1 Fall 2014 CLS 0183 Elementary Sanskrit 1 2 CLS 0191 Intermediate Sanskrit 1 Spring 2015 CLS 0192 Elementary Sanskrit 2 1 CLS 0192 Sanskrit Readings: Rig Veda 1 Fall 2015 CLS 0183 Elementary Sanskrit 1 CLS 0192 Intermediate Sanskrit

Overlap. There is no overlap, as the Sanskrit language is not taught elsewhere at Tufts. Sanskrit complements our existing courses in South Asian history, religion, philosophy, and art.
Colleagues in Religion and Anthropology support the proposal.

**Resource Requirements/ Curricular Adjustments.** Sanskrit will continue to be taught by Mahoney using the directed study mechanism; we will therefore keep enrollments low. The library already has the essential books (dictionary, grammar, literature).

**Requirements.** These courses will count as electives in all classics major tracks.

**ARB Review:**

ARB Review Requested for FL Requirement

---

**Item 2. NEW COURSE - Classics**

*From: Anne Mahoney, 7-4643, anne.mahoney@tufts.edu*

*Department Chair: Vickie Sullivan, 7-3213, vickie.sullivan@tufts.edu*

**SKT 0002 Elementary Sanskrit 2**

**Bulletin Description:** Continuation of SKT 1: further morphology and syntax, vocabulary building, pragmatics.

**Next Anticipated Offering:** every spring

**Rationale.** See SKT 1.

**Overlap.** See SKT 1.

**Resource Requirements/ Curricular Adjustments.** See SKT 1.

**Requirements.** See SKT 1.

**ARB Review:**

ARB Review Requested for FL Requirement

---

**Item 3. NEW COURSE - Classics**

*From: Anne Mahoney, 7-4643, anne.mahoney@tufts.edu*

*Department Chair: Vickie Sullivan, 7-3213, vickie.sullivan@tufts.edu*

**SKT 0003 Intermediate Sanskrit**

**Bulletin Description:** Reading of selections from the *Mahābhārata* or *Rāmāyaṇa*, and review of grammar as necessary.

**Next Anticipated Offering:** Fall 2015 (as a directed study) and subsequent fall semesters depending on student demand.

**Rationale.** See SKT 1.

**Overlap.** See SKT 1.

**Resource Requirements/ Curricular Adjustments.** See SKT 1.

**Requirements.** See SKT 1.

**ARB Review:**

ARB Review Requested for FL Requirement

---

**Item 4. NEW COURSE - Classics**

*From: Anne Mahoney, 7-4643, anne.mahoney@tufts.edu*

*Department Chair: Vickie Sullivan, 7-3213, vickie.sullivan@tufts.edu*

**SKT 0120 Readings in Sanskrit**

**Bulletin Description:** Readings from classical or Vedic Sanskrit literature. May be repeated.
Next Anticipated Offering: Expected Spring 2016.

Rationale. See SKT 1.

Overlap. See SKT 1.

Resource Requirements/ Curricular Adjustments. See SKT 1.

Requirements. See SKT 1.

ARB Review:
Distribution Credit Humanities
Culture Option South Southeast Asian Culture (region of origin)
World Civilizations Credit

Item 5. NEW COURSE - Drama
From: Heather Nathans, 6176273524, heather.nathans@tufts.edu
Department Chair: Heather Nathans, 6176273524, heather.nathans@tufts.edu

DR 0008 First-Year Showcase

Bulletin Description: Introduces first-year students to the production program in the Department of Drama and Dance with a strong emphasis on developing both the creative and the collaborative aspects of performance. Students present a fully-staged public performance and work as designers, directors, stage managers, dramaturgs, and crew.

Next Anticipated Offering: This course was piloted in Fall 2014, and will be offered on a regular basis every fall for incoming first-year students.

Rationale. While the Drama curriculum offers a strong series of theatre history courses and a basic "Intro to Acting" course, there has been, up until this point, no natural "gateway" into the Drama program for first-year students eager to learn about all aspects of the production process, and interested in developing their collaborative skills. This course was especially designed to offer first-year students a guided transition into the Drama program's offerings. It incorporates all elements of acting, directing, design, and dramaturgy, including both an experiential learning process in which students collaborate with senior faculty members to learn these skills, and lectures and readings that provide historical and scholarly context for their work. The class incorporates research, analytical writing, as well as creative projects. The class culminates in a fully-staged production for which the students serve as performers, designers, stage managers, dramaturgs, and crew (under the guidance of faculty and production staff). All production work takes place during recitation hours so students are not unduly burdened during their first semester on campus. First-year students are also matched with more senior Drama student mentors who can serve as a resource during their first term on campus.

Overlap. Not at the present time.

Resource Requirements/ Curricular Adjustments. The course is delivered by a department faculty member and one or two teaching assistants, depending on enrollment. It occupies a "workshop" slot already built into our production season. A $15 lab fee attached to the course covers royalty fees for the shows produced by the students and any consumable prop items. All readings are provided for students on the TRUNK site.

Requirements. This course may fulfill one of the elective requirements for the major.

ARB Review:
Distribution Credit Arts
Item 6. NEW COURSE - Drama & Dance
From: Renata Celichowska, 617.627.2555, renata.celichowska@tufts.edu
Department Chair: Heather Nathans, 617.627.2222, heather.nathans@tufts.edu
DNC 0075 Choreographer's Workshop
Bulletin Description: Develop a project through specific, personal compositional process. Includes one initial movement assignment for all students. Compositional possibilities are a starting point from which choreographers define options. Includes in-class movement experiences, showings, discussion, the creation of 2-3 short dances, and performance in one’s own and other student dances. Viewing, reading and journal assignments specific to each student. Additional rehearsal time outside of class. Prerequisites: Previous dance composition or DNC 62; permission of the instructor.
Next Anticipated Offering: Fall, 2015.
Rationale. This course is a revision of DNC 117 Studies in Dance Composition that more accurately describes the Dance Program Curricular goals for mentoring students in the creative process. Tufts students interested in creative process and choreography are coming to our courses with a wide-variety of experience and interests. The existing course is being taught in a style that accommodates and uses the strength of this variety to challenge students to push their creative comfort zones and knowledge base. The description of the old course does not reflect the current course nor the needs of the program students. The change in numbering aligns with a larger re-numbering of Dance Program courses that was initiated with the on-boarding of the new Director of Dance in Fall, 2012.
Overlap. No overlaps. This is the only dance composition course at Tufts.
Resource Requirements/ Curricular Adjustments. None.
Requirements. Currently, the DNC 117 Studies in Dance Composition course fulfills a minor requirement in creative process. The replacement course, DNC 75 Choreographer's Workshop, will also fulfill a minor requirement in creative process and will eventually be the prerequisite course for students wishing to complete a Dance Minor Capstone project in Choreography. We see the need for this additional level of mentoring so that students preparing choreography have at least a semester of choreographic experience before attempting the more independently structured capstone project.
ARB Review:
Distribution Credit Arts

---

Item 7. NEW COURSE - Drama & Dance
From: Renata Celichowska, 617.627.2555, renata.celichowska@tufts.edu
Department Chair: Heather Nathans, 617.627.2222, heather.nathans@tufts.edu
DNC 0077 Dance on Camera
Bulletin Description: Inter-disciplinary course designed for any dancer, artist or student interested in film & video production with dance or movement as a medium. Participants will take dance and movement concepts outside of studio walls and into the community through site-specific collaborative video projects. Through storyboarding, shooting, editing, and choreographing/directing, students will learn basic video production techniques and advanced camera work in this hands-on course. Development of movement ideas as well as non-linear editing skills will be explored. Work culminates in end of semester public screening and online video sharing. Open to all. No dance or film/video experience necessary.
**Next Anticipated Offering:** The course has been successfully offered twice as a .5 credit Special Topics course: Spring 2014 (DNC 92.03) and Spring 2015 (DNC 92.03). We are currently scheduled to offer it again as a .5 credit Special Topics course Fall, 2015. However, the work involved in the course and the university-wide investment of equipment to establish this course presents itself as an opportunity to make this a permanent, full-credit course that we anticipate offering every fall semester. Therefore, we would like to convert it to a fully numbered and listed course in the curriculum and bulletin.

**Rationale.** Dance on Camera, also referred to around the world as dance on screen, videodance, dancefilm, or screendance, is a visual and kinesthetic experience in the form of a film or video work. Dance on Camera prioritizes dance over conventional dialogue and acting to tell a story or convey an idea. Dance on Camera is itself, an innovative genre in the field of dance and has made radical developments with the advancement of technology over the past few years. The world is rapidly becoming a digital landscape and the Department of Drama and Dance is committed to updating the curriculum by integrating technology into their teaching and course offerings. Over the past two years, the Dance Program has been addressing some of the areas in which our Tufts Program can develop and expand to more fully reflect current aesthetic activity in the dance field. The collaboration between new media and technology and dance is one of those areas in need of development. The first integrated dance and technology course taught at Tufts, Dance on Camera, was offered as a Special Topics course during Spring Semester 2014 and again during Spring Semester 2015. This course explores aspects of history, composition, aesthetics, and technology as a foundation for film and video production with dance or movement as its medium. For the past two years, part-time faculty member Jaclyn Waguespack has worked with Marc Raila and Michael Callahan, both Digital Media Technologists in the Tisch Library’s Digital Design Studio (DDS) at Tufts, to help provide support for the course and serve as resources for the students. The course has proven itself to be a popular and innovative addition to the Department’s course offerings. The Dance on Camera course encourages students to think, connect, create, communicate, and collaborate with each other on a deeper level, which is in keeping with the liberal arts vision of Tufts. The goal of the Dance on Camera course in the future will be to continue its momentum by challenging the students’ problem-solving, collaboration, and critical thinking skills and by introducing them to the most advanced digital technologies and tools. The Dance on Camera course fills a gap in our department by providing both practical and theoretical exposure to the creative intersection between dance and film. The Dance on Camera course creates a forum through which we can support and develop dance and technology teaching and research. It also bridges the gap between other departments, namely the Film Program and Communications and Media Studies, to provide a foundation for additional interdisciplinary courses. The Dance on Camera course allows students to develop hands-on technological skills through the study and practice of artistic expression. The university has invested in the Tisch Library’s Digital Design Studio and additional media labs on campus. This course encourages students to make use of the ever-expanding resources currently available to them. The university, through a Tufts Innovates! seed grant, has already invested in purchasing the necessary equipment for the Department of Drama and Dance to continue to offer this course at a professional level (equipment acquired: 10 digital single-lens reflex cameras as well as lighting and grip equipment). Peer institutions offer similar courses integrating dance, media and technology. Including the Dance on Camera course in our curriculum makes us a competitive choice for prospective students.

**Overlap.** Due to the specialized nature of this inter-disciplinary art form (Dance & Film), we do
not see a conflict with any current dance OR film/media studies endeavors. Members of the Tufts Media and Film studies programs, such as Jennifer Burton (Drama & Dance), Howard Woolf (Ex-College) and Julie Dobrow (CMS) are aware of the course and have been partnering with the Dance Program to get word out about it.

**Resource Requirements/ Curricular Adjustments.** Plans for the course include continuing to allocate part-time faculty resources through the Dance Program and use of newly purchased equipment, including 10 cameras, a studio light kit and support equipment, and on-site studio a/v projectors.

**Requirements.** The course is not only be available to Drama and Dance Minors in fulfillment of elective credits, but it will be a gateway course for students interested in the intersection of performance and media studies. For the Fall, 2015 semester, the course is being cross-listed with Communications and Media Studies. The course also offers transferrable skills for students working in media in other dance and drama courses.

ARB Review:

*Distribution Credit Arts*

---

**Item 8. NEW COURSE - Physics and Astronomy**

*From: Danilo Marchesini, 7-2756, danilo.marchesini@tufts.edu*

*Department Chair: Roger Tobin, 7-5461, roger.tobin@tufts.edu*

**AST 0031 Stellar Structure and Evolution**

**Bulletin Description:** Interaction of light and matter, telescopes, stellar structure, stellar evolution, inter-stellar medium, exoplanets, and formation of planetary systems. Some assignments involve the use of computers. Intended for students with a background in physics and/or astronomy and mathematics and a strong interest in astronomy. May be used to satisfy the concentration requirements for major and minors in the Department of Physics and Astronomy. Prerequisites: Physics 11 and 12, or by instructor consent.

**Next Anticipated Offering:** Fall 2015

**Rationale.** The course was offered as a special topic course, namely AST 0015, in the Fall 2013 and Spring 2015 semesters. It was titled “Special Topics – Stellar Evolution”. AST 0031 fulfills the need of a course intended for students with a background in physics and/or astronomy and mathematics, and a strong interest in astronomy. In particular, this course is a required course for undergraduate students majoring or minoring in astrophysics. This course is needed to strengthen the course offering for the major in Astrophysics. This course does not have much impact on other programs of study outside the department. Within the department of Physics and Astronomy, AST 0031 does not conflict with other courses, while it satisfies the need for a more rigorous and more focused course on stellar structure and stellar evolution. Prof. Marchesini, has taught AST 0031, in its special topic version AST 0015, in both the Fall 2013 and Spring 2015 semesters, and there is no foreseeable change in the instructor of this course. This course nicely complements AST 0032, which covers extragalactic astrophysics and cosmology, and AST 0101, which teaches radio astronomy.

**Overlap.** Part of the content of AST 0022 overlaps with AST 0031. AST 0022 has been historically taught by Prof. Ken Lang, and it has been primarily attended by students from the School of Engineering. AST 0031 differs from AST 0022, as AST 0031 fully focuses on stellar astrophysics, specifically on stellar structure and stellar evolution, whereas AST 0022 had a much broader content, introducing concepts both in stellar astrophysics (e.g. the Sun, stellar
evolution, planets), and in extragalactic astronomy and cosmology (e.g. dark matter and supermassive black holes in galaxies, the interstellar medium, the expanding universe, radio galaxies, gamma-ray bursts, and the cosmic microwave background radiation). AST 0022 better fulfills the needs of an introductory course in stellar astrophysics and extragalactic astronomy, whereas AST 0031 is better suited for an in-depth understanding of stellar structures and stellar evolution. There is no other potential overlap with courses in other departments.

Resource Requirements/ Curricular Adjustments. No new resources needed. The instructor will be teaching the course and he/she will also be responsible for grading and course management.

Requirements. The course is part of the astronomy and astrophysics major core requirements. It also serves to fulfill science elective requirements for students majoring in related fields (especially physics and engineering). It will allow students taking AST 0032 to better understand the material. Other than that, AST 0031 will not be the requirement for any other courses.

ARB Review:
Distribution Credit Natural Sciences

Item 9. NEW COURSE - Physics and Astronomy
From: Anna Sajina, 7-5354, anna.sajina@tufts.edu
Department Chair: Roger Tobin, 7-5461, roger.tobin@tufts.edu

AST 0032 Galactic and Extragalactic Astrophysics

Bulletin Description: Key radiative processes in astrophysics, the Milky Way galaxy, normal and active galaxies including quasars, formation and evolution of galaxies, and observational cosmology. Will include assignments involving the use of computers. Intended for students with a background in physics and/or astronomy and mathematics, and a strong interest in astronomy. May be used to satisfy the concentration requirements for majors and minors in the department of physics and astronomy. Prerequisites: Physics 11 and 12, or by instructor consent.

Next Anticipated Offering: Spring 2016 – In general, we expect it to be given in the Spring semester, so that students have the option of taking the sequence AST 0031 – AST 0032 in sequential order, although AST 0032 can also be taken without taking AST 0031 first.

Rationale. This course was offered as a special topic course (AST 0016 – Special Topics: Galactic and Extragalactic Astrophysics) in the Spring of 2012, and again in the Fall 2014. The course fulfills the need of a course intended for students with a background in physics and/or astronomy and mathematics, and a strong interest in astronomy. In particular, this course is a required course for the undergraduate students majoring or minoring in astrophysics. This course is needed to strengthen the course offerings for the major in astrophysics. However, the course also serves as a science elective for students not majoring in astrophysics but who would prefer a more rigorous and physics based introduction to galactic and extragalactic astrophysics. The students who have taken the course in the past (in its special topic version) included physics, engineering, astrophysics and computer science majors. Prof. Sajina has taught AST 0032 in both the Spring 2012 and Fall 2014 semesters and there is no foreseeable change in the instructor of this course.

Overlap. AST 0032 does not conflict with other courses offered at Tufts. It complements AST 0031 (Stellar Astrophysics). Indeed, the course uses the same textbook (Caroll and Ostlie’s Introduction to Modern Astrophysics), but focus on different chapters therein. For astrophysics majors, the intended sequence is AST 0031 and then AST 0032, although AST 0032 can also be
taken without AST 0031. Several students have already taken the courses in reversed sequence. Given the nature of the course, the only potential instructors are within the physics and astronomy department, and have all been aware of these courses since their initial offering as Special Topics courses.

**Resource Requirements/ Curricular Adjustments.** No new resources needed. The instructor will be teaching the course, and he/she will also be responsible for grading and course management.

**Requirements.** The course is part of the Astrophysics major core requirements. It also served to fulfill science elective requirements for students majoring in related fields (especially physics and engineering).

**ARB Review:**
Distribution Credit Natural Sciences

---

**Item 10. NEW COURSE - Physics and Astronomy**
*From: Krzysztof Sliwa, 7-3332, kслиwa@tufts.edu*
*Department Chair: Roger Tobin, 7-5461, roger.tobin@tufts.edu*

**PHY 0062 Quantum Theory II**

**Bulletin Description:** Selected topics from: perturbation theory, EPR paradox, Bell's theorem, applications of quantum theory to model solids, conductors, scattering theory, quantum cryptography and computation. May be used to satisfy the concentration requirements for majors and minors in the department of physics and astronomy. Prerequisites: Physics 0061--Quantum Theory I.

**Next Anticipated Offering:** It should be taught on a regular basis in the Spring semester. First instance will be given in Spring 2016.

**Rationale.** One semester is barely enough time to properly introduce students to the concepts and rules of quantum mechanics, its formalism and interpretation, to solve the hydrogen atom using Schrodinger equation, and to study angular momentum and spin. There is not enough time to properly explain perturbative theory, EPR paradox, scattering theory, and to show applications of quantum theory to solid state models, conductors et cetera. A second course must thus be created, as in many physics department across the country. It has already been successfully offered 3 times as a special topic, demanded by students.

**Overlap.** There is no conflict with other courses at Tufts as this is an upper level physics course that can only be given in the physics department. All the potential instructors are in the physics department, and are well aware of this course, as it was discussed in a faculty meeting.

**Resource Requirements/ Curricular Adjustments.** We should commit ourselves to teaching two quantum theory courses each year. If we don’t do it, our students will be leaving Tufts with only rudimentary knowledge of one of the most important fields of physics. This means devoting one faculty to teach such a course every Spring semester. No graders or other resources will be devoted to this course.

**Requirements.** This course is not a physics major requirement, but count toward the physics major.

**ARB Review:**
Distribution Credit Natural Sciences
Item 11. NEW MAJOR -Undergraduate Second Major in Education

From: David Hammer, 7-2396, David.Hammer@tufts.edu
Department Chair: David Hammer, 7-2396, David.Hammer@tufts.edu

Rationale. This major proposal is submitted in response to the formal Tufts Community Union (TCU) request for a major, the growing interest among students in Education as a scholarly and professional field, and the shifting nature of teacher preparation nationwide.

First, on 2/17/14 the TCU passed the resolution of this request: “BE IT FURTHER RESOLVED THAT the TCU Senate requests that the Education Department take all the appropriate steps for the creation of an Education major such as designating the appropriate coursework and seeking approval from the requisite faculty committees.”

Second, the development of an Education minor and the expansion of Education courses across undergraduate programs such as American Studies, Peace and Justice Studies, and Women’s, Gender, and Sexuality Studies, has prompted increased interest in Education as a major area of study.

Third, there is persistent societal interest in education, with respect to curriculum (e.g. the “Common Core”) and teacher preparation (e.g. in recent proposed new regulations). An undergraduate major that prepares young people to engage in such issues with intellectual depth has the potential for great impact, including as graduates consider related careers as scholars, teachers, lawyers, policy makers, and so on. Further this major could provide a model for an undergraduate Education degree that is not attached to licensure or other professional features but focuses on scholarship.

Minimal impact on resources. The proposed major mostly assembles existing resources in the Department of Education and course offerings from other A&S Departments. The impact will be mainly in increased enrollments in existing courses and added (or shifted) advising loads. When and if undergraduate interest demands, we will seek out additional resources.

Major focus. The major proposed here reflects two broad foci of scholarly attention in Education. One concerns the study of institutions, systems, and ideologies; the other concerns the study of the processes and practices by which learners and teachers come to new understandings in particular disciplinary areas.

Education. Education is a constellation of practices, processes, and institutions situated at the nexus of social organization in the contemporary world. Therefore, the study of Education demands deep scholarly engagement with both the complex ongoing and historical systems of power that form society and the processes of thinking, learning, teaching, and assessment practiced across educational contexts. In that spirit, this major considers the ethical and material dimensions of schooling and teaching, the reproductive material and ideological functions in the relationship between school and society, the role of race, gender, class, and sexuality in the production of knowledge, and both the oppressive and liberatory potentials of teaching and learning.

At another level, the study of Education concerns learning, teaching, and assessment in the disciplines. The emergence of discipline-based education research, with the cognitive and learning sciences, is challenging long-held understandings of pedagogy. Research on learning academic disciplines (e.g. history, mathematics, etc.) has expanded notions of disciplinary “content” to include the disciplines’ respective epistemic values, aims, and practices.
Mathematicians, for example, are professional learners, and so learning mathematics means learning how to learn, and this recognition motivates reconsideration of curriculum and pedagogy. This major engages students in the study of the epistemological, socio-cognitive, and developmental features of teaching and learning within and across academic disciplines.

**Bulletin Description.** Education at Tufts is a 10-credit second major. Students will enter the major through a multi-disciplinary exploration of the scholarly field of Education, organized into five areas of study and required coursework. Education majors will select a concentration in one of two areas: Educational Studies or Teaching and Learning in the Disciplines. Majors must take at least three 100-level courses and undertake a capstone experience to complete the major. Majors may double-count up to three courses with another major, provided the double-counting requirements of the first major are the same.

**Teaching and Learning.** The study of Teaching and Learning is organized around explorations of student and teacher thinking, practice, and interaction. Scholarship in this concentration explores what it means to participate in the disciplines (e.g., science, history, mathematics, languages), how particular environments support learning, and the relationships and interactions between students and teachers in educational settings. For instance, Teaching and Learning students can examine how students in classrooms take up scientific and mathematical practices and dispositions. Others can explore how educational activities expand the ways students think about the humanities.

**Educational Studies.** Educational Studies focuses on the social and cultural foundations of education with particular attention to race, gender, sexuality, and other dimensions of societal organization. Scholarship in Educational Studies considers these dimensions in relation to an array of educational institutions and practices, such as: public schools; policies; pedagogies; and, political movements. Guided by critical theoretical study and drawing from disciplinary approaches in anthropology, history, philosophy, sociology, and law, students in this major explore places where knowledge is produced, structures that shape that knowledge production, and forces that have shaped education in the past and will continue to shape education in the future.

**Course Requirements.** All Education majors will take five (5) courses that fulfill the core requirements in the 5 areas of study. There are two courses, marked with an asterisk (*) that we will develop if the major is approved.

**Core requirements:**
1. Introductory course: An introductory course that familiarizes students with a range of the lines of inquiry that reach across areas of the field of Education:
   - ED 1 School and Society
   - ED 11 Observing Theory in Action
   - ED 62 Class, Race, Gender in the History of U.S. Education
   - ED 91 Food and Schools
   - ED 91 The Global Educator

1. Literacy course: A course aimed at considering the cultural, linguistic, and cognitive features of literacy:
   - CD 154 Development of Literacy
   - CD 155 The Young Child's Development of Language
   - ED 191 Foundations of Literacy
   - [course to be developed by new hire in Critical Literacy Studies]

1. Teaching and Learning course: A course focusing on the particular forms of knowledge,
practice, and thinking about teaching and learning within specific disciplines and multidisciplinary fields. (Some courses presume or assign teaching experiences—e.g. tutoring, etc.—for a minimum of 3 hours/week):

- ED 10/13* Teaching and Learning in the Humanities and Social Sciences
- ED 111 Development of Knowledge and Reasoning in the Science Curriculum
- ED 112 Mathematics Learning Environments
- ED 114 Linguistic Approaches to Second Language Acquisition
- ED 116, 117 Interdisciplinary Elementary Curriculum
- ED 119 Development of Knowledge and Reasoning in Engineering
- ED 191 Art Education, A Global Perspective

1 Foundations course: A disciplinary course attending to the critical, theoretical questions of Education situated within the Educational Studies scholarship

- ED 160 Comparative Education
- ED 161 Sociology of the School
- ED 162 Race, Class, Gender and the History of US Education
- ED 163 Philosophies of Education

1 Development course: A course situated within scholarship on human development and learning

- ED 130 Human Development and Learning
- CD 51 Intellectual Development of the Young Child
- CD 82 Social Policy for Children and Families
- CD 151 Advanced Intellectual Development of the Young Child
- CD 152 Development of Thought and Language
- CD 153 Culture and Learning: Issues for Education

Concentrations

**Teaching and Learning concentration requirements.** 5 additional credits earned through coursework and the capstone experience. For this concentration, majors must take 3-4 courses distributed across the following areas:

**Practices courses:**

- 120 Practice of Teaching: History and Political Science/Political Philosophy
- 121 Practice of Teaching: Science
- 122 Practice of Teaching: Mathematics
- 123 Practice of Teaching: English
- 124 Practice of Teaching: Languages
- 125 Practice of Teaching: Latin and Classical Humanities
- 127 Practice of Teaching Elementary STEM
- 129 Practice of Teaching Engineering and Design
- ED 191 (COMP 150) Theories and Technologies for K12 CS Education

**Research Methods courses:**

Students planning to complete a capstone involving research (either a project or internship) must take at least one methods class:

- ED 191 Design based research
- ED 271 Methods for Educational Research (by permission only)
- SOC 101 Quantitative Research Methods
- SOC 102 Qualitative Research Methods
- CD 42 Introduction to Problems of Research: Methods and Design
- CD 142 Problems of Research: Methods and Design
CD 144 Qualitative and Ethnographic Methods in Applied Social Science Research

Electives: Students choose electives in consultation with their major advisor, such as from the following courses.

- ED 92: Prosocial Education for a Democratic Society
- ED 142 Education of the Exceptional Child
- ED 164 Education for Peace and Justice
- ED 182 Technological Tools for Learning
- ED 183 Grammar and Writing for Teachers
- ED 189 The Role of “Story” in Education
- COMP 150 (ED 191) Design of Collaborative Learning Environments
- ED 191 STEAM - A Primary Study of Color: an Artistic, Social, and Scientific Inquiry into Color
- ED 198: Step-Up Boston: field experience in Education: undergraduates: contexts for human development (fulfills Development requirement)
- PSY 121 Applying Cognition to Education
- PSY 139 Social Cognition

Capstone Experience. Students will select a capstone experience from among the options below. Students will enroll in an accompanying seminar.

- ED 193/194: Major Research Project in Education (1 credit)
- ED 195/196*: Senior Honors Thesis (2 credits)

Students may (1) conduct a study designed by the student and report the results in some venue (e.g., conference, article, etc.), (2) participate on a research project with faculty and pursue a particular line of inquiry within that project; (3) participate in a research study with a local educational institution or non-profit and report findings in some venue.

- ED 198/199: Field Studies in Education (1 credit)

Students may complete a field experience in a local school or educational setting. The details of the practicum will be discussed with the advisor and directions of school partnerships, placements, and teacher education.

- ED 105/106: Major Internship Experience (1 credit)

Students may participate in an internship with a local educational institution (e.g., museum, research and development non-profit, policy organization, etc.). This internship may focus on Education broadly, including policy, programming, curriculum development, and others.

Educational Studies Concentration requirements. 5 Additional credits earned in coursework and through the capstone experience. For this concentration, majors must take 3-4 courses distributed across the following areas:

Foundations courses:
- ED 160 Comparative Education (fulfills core requirement)
- ED 161 Sociology of the School (fulfills core requirement)
- ED 162 History (fulfills core requirement)
- ED 163 Philosophies (fulfills core requirement)

Theory courses:
- ED 167 Critical Race Theory
- ED 160 Comp Ed (Post-colonial theories) (fulfills core requirement)
- ED 191 Feminist Theories in Education
Electives: Students choose electives in consultation with their major advisor, such as from the following courses.

- AMER 180 African Americans in the Post-Civil Rights Era
- AMER 194 Race and Racialization in Native America
- ANTH 130 Anthropological Thought
- ANTH 169 Anthropology of the State: Subject, Citizen, Sovereignty
- CD 164 Cultural Diversity in Child and Family Services
- CD 177 Bilingual Children in U.S. Schools
- EC 124 State and Local Public Finance
- EC 127 Urban Economics
- EC 145 Economics of Higher Education
- ED 191 STEAM - A Primary Study of Color: an Artistic, Social, and Scientific Inquiry into Color
- ED 142 Education of the Exceptional Child
- ED 191 Radical Lesbian Thought
- ENG 191 Black Feminist Theories
- ENG 192 Fanon and Black Textual Revolution
- FAH 1 or 2 Introduction to World Art (I or II)
- HST 128 Civil Rights Movement
- HST 129 Black Political Thought in the Twentieth Century
- PH 125 Racism and Social Inequality
- PS 105 Constitutional Law
- PS 106 Racial and Ethnic Politics
- PS 118-06 Topics in American Politics: Community Organizing
- SOC 149 Sexuality and Society
- SOC 187 Immigrant Children & Children of Immigrants
- SOC 188 Racial Identity in Historical Perspective
- UEP 240 US Social Welfare Policy

**Research Methods courses.** Students undertaking a thesis or paper in their first major, but who are interested in focusing on some aspect of Educational Studies, are encouraged to take a research methods course, selected in collaboration with their Educational Studies advisor. This course can fulfill either the Elective or Advanced Seminar category, depending on the course.

- WGSS 190 Doing Feminist Research
- SOC 102 Qualitative Research Methods
- ANTH 149 Ethnographic Methods
- CD 144 Qualitative and Ethnographic Methods in Applied Social Science Research

**Capstone Experience.** Educational Studies majors will take two advanced seminars, chosen from the following list. Through one of these seminars, students must establish a line of inquiry and conduct a research paper of at least 30 pages in length. This paper must demonstrate engagement with at least one theoretical framework and one area of educational research. The paper will be submitted as the final paper for the course and to the major advisor.

**Advanced Seminar courses.**

- ED 191 Pedagogies (course number pending)
- WGSS 190 Doing Feminist Research (fulfills possible methods requirement)
- ED 167 Critical Race Theory
Part II

Item 12. CHANGE PROGRAM—Minor in Asian American Studies

From: Jean Wu, 72311, jean.wu@tufts.edu
Department Chair: Jean Wu, 72311, jean.wu@tufts.edu

Current Bulletin Description: Asian American Studies is an interdisciplinary academic field dedicated to the examination of the historical and contemporary experiences of Asian Americans, which includes the diasporic East Asian, Southeast Asian, South Asian, and Pacific Islander populations whose lives and labor shape and are shaped by the United States and the Americas. It applies the methods and perspectives of traditional academic disciplines, including but not limited to history, sociology, anthropology, education, psychology, and literature, to understanding the histories, communities, cultures, and experiences of Asian Americans. Asian American Studies was founded jointly with Black Studies and Ethnic Studies as a result of efforts for curricular transformation that were part of the national movements for racial and social justice of the 1960s and 1970s. Though the field has grown and expanded since it was initiated over four decades ago, it retains a focus on addressing social disparities in the U.S. and the world as they relate to Asian Americans. A minor in Asian American Studies provides a coherent program of study for students who wish to critically examine Asian American experiences and wish to develop a specialization in Asian American Studies alongside their degree pursuits.

The AAS minor requires six credits:
1. One introductory survey/foundation course on Asian American experiences with at least a third of its content on Asian American history
2. At least one course focused on race in which Asian American experiences are addressed in a U.S. sociopolitical context; these courses should include at least one major module/unit on Asian American histories, experiences, and/or cultures
3. At least one course with full focus on Asian American experiences beyond the foundation
4. Up to two elective courses that, while they may not have direct Asian American content, must address issues or topics relevant to the historical and/or contemporary experiences of Asian Americans. Examples of these types of topics include but are not limited to immigration, educational access, bilingualism, health disparities, labor relations, environmental justice, media representations, cultural resistance productions, comparative race and ethnic studies, etc. Students wishing to count these courses towards the minor in Asian American Studies must consult with the course instructor for permission to focus independent work (e.g., a paper) on an appropriate Asian American topic; all elective courses must be approved by the Asian American Studies Committee.
5. An integrative capstone course or project that focuses on an Asian American community. The capstone project must be approved by the AAS committee and may be fulfilled in one of three ways:
   a. A faculty-supervised internship in an Asian American organization or organization that significantly services Asian American communities. Students must produce a final paper
analyzing their experience.

b. A community-based research course in which the research focus is on an Asian American community.

c. An independent research paper or project on the Asian American experience with AAS faculty or other AAS-approved faculty advisor.

Minors in Asian American Studies may take up to two courses as independent study or as transfer courses from other institutions or that are counted towards a major or a foundation requirement. Courses with grades lower than C- will not be accepted towards the minor. Special note on Languages The minor does not require proficiency in Asian languages because the language of the field of Asian American Studies (i.e. the scholarly literature) is English. Moreover, we do not want to discourage students from other majors, especially students with pre-professional plans, from taking the minor because of a language requirement that would require them to add additional credits to their program of study. A student who decides to pursue proficiency in an Asian language may count one course at the advanced level (e.g., JPN 21, CHNS 21 or above, or equivalent in another Asian language) towards one of the elective courses in the minor. We also encourage students interested in strengthening their knowledge of one or more Asian languages to seek an internship or project as their capstone experience that will allow them to interact with newer immigrants, who will be less likely than more established Asian Americans to speak English. For more detailed information, please visit http://as.tufts.edu/americanStudies/minors.

New Description: Asian American Studies is an academic minor program in the Consortium of Studies in Race, Colonialism, and Diaspora. As an interdisciplinary academic field, Asian American Studies is dedicated to the examination of the historical and contemporary experiences of Asian Americans, which includes diasporic East Asian, Southeast Asian, South Asian, and Pacific Islander populations whose lives and labor shape and are shaped by the United States and the Americas. It applies the methods and perspectives of traditional academic disciplines, including but not limited to history, sociology, anthropology, education, psychology, and literature, to understanding the histories, communities, cultures, and experiences of Asian Americans. Asian American Studies was founded jointly with Black Studies and Ethnic Studies as a result of efforts for curricular transformation that were part of the national movements for racial and social justice of the 1960s and 1970s. Though the field has grown and expanded since it was initiated over four decades ago, it retains a focus on addressing social disparities in the U.S. and the world as they relate to Asian Americans. Sample courses include: Introduction to Asian America, Asian American History, Asian American Literature, Race in America, Politics of U.S. Immigration Policy, Bilingual Children in U.S. Schools, Race, Ethnicity, and Health A minor in Asian American Studies provides a coherent program of study for students who wish to critically examine Asian American experiences and wish to develop a specialization in Asian American Studies alongside their degree pursuits.

The AAS minor requires six credits:

1. One introductory survey/foundation course on Asian American experiences with at least a third of its content on Asian American history
2. At least one course focused on race in which Asian American experiences are addressed in a U.S. sociopolitical context; these courses should include at least one major module/unit on Asian American histories, experiences, and/or cultures
3. At least one course with full focus on Asian American experiences beyond the foundation
4. Up to two elective courses that, while they may not have direct Asian American content, must
address issues or topics relevant to the historical and/or contemporary experiences of Asian Americans. Examples of these types of topics include but are not limited to immigration, educational access, bilingualism, health disparities, labor relations, environmental justice, media representations, cultural resistance productions, comparative race and ethnic studies, etc.

Students wishing to count these courses towards the minor in Asian American Studies must consult with the course instructor for permission to focus independent work (e.g., a paper) on an appropriate Asian American topic; all elective courses must be approved by the Asian American Studies Committee.

5. An integrative capstone course or project that focuses on an Asian American community. The capstone project must be approved by the AAS committee and may be fulfilled in one of three ways:
   a. A faculty-supervised internship in an Asian American organization or organization that significantly services Asian American communities. Students must produce a final paper analyzing their experience.
   b. A community-based research course in which the research focus is on an Asian American community.
   c. An independent research paper or project on the Asian American experience with AAS faculty or other AAS-approved faculty advisor.

   Minors in Asian American Studies may take up to two courses as independent study or as transfer courses from other institutions or that are counted towards a major or a foundation requirement. Courses with grades lower than C- will not be accepted towards the minor. Special note on Languages The minor does not require proficiency in Asian languages because the language of the field of Asian American Studies (i.e. the scholarly literature) is English. Moreover, we do not want to discourage students from other majors, especially students with pre-professional plans, from taking the minor because of a language requirement that would require them to add additional credits to their program of study. A student who decides to pursue proficiency in an Asian language may count one course at the advanced level (e.g., JPN 21, CHNS 21 or above, or equivalent in another Asian language) towards one of the elective courses in the minor. We also encourage students interested in strengthening their knowledge of one or more Asian languages to seek an internship or project as their capstone experience that will allow them to interact with newer immigrants, who will be less likely than more established Asian Americans to speak English. For more detailed information, please visit http://as.tufts.edu/AsianAmericanStudies/

Rationale. When the minor was created it was housed in American Studies because it expanded the scope of the race and ethnic studies curricula in American Studies and made it most visible/accessible to interested students. With the creation of the new Consortium of Studies in Race, Colonialism, and Diaspora, affiliated faculty are embarked on a process of “norming” the minors in the consortium: Latino Studies Minor and Colonialism Minor, as is proposed Asian American Studies Minor. We are confident that the Asian American Studies minor will have increased visibility and access to students by its association with the RCD Consortium. Administrative support for the minor will be handled in the same way it currently is, by the program administrator for the RCD Consortium.

Overlap. There are no conflicts. The American Studies Program faculty, the Steering Committee for the Asian American Studies Minor, and the RCD consortium faculty fully support this proposed change.

Resource Requirements/ Curricular Adjustments. No additional resources or curricular
Item 13. COURSE CHANGE DESCRIPTION—Drama & Dance—DNC 0071
From: Renata Celichowska, 617.627.2555, renata.celichowska@tufts.edu
Department Chair: Heather Nathans, 617.627.2222, heather.nathans@tufts.edu
Current Number/Title: DNC 0071 Dance Movement & Creative Process
Current Bulletin Description: Vigorous non-level movement, group processes, and creative problem-solving, culminating in ensemble jamming. World dance videos provide a context for nonstylized materials. One-half or one course credit.
New Description: Explore the basic principles of movement: level, direction, speed, quality, rhythm, initiation. Learn to use unexpected sources to inspire movement. Safely experience close physical contact and learn how to take and give weight, how to lift and be lifted. Explore individual and group creative improvisational process. Includes diverse video viewings, readings, discussion and short written assignments on ideas as diverse as geography, cultural history, aesthetics, anthropology. 1.0 credit. .5 credit option.
Next Anticipated Offering: Spring 2016
Rationale. Because the course involves physical contact for new to dance students, we are finding that students need a better picture of what will be expected from them when they enter the class. The course might not be appropriate for students who are not prepared to work with students in improvisational movement exploration that involves close physical contact. The current description has caused some confusion regarding these issues.
Resource Requirements/ Curricular Adjustments. None.
Requirements. It is currently considered a core course for the Dance Minor and a gateway course for non-dancers.
Effects. We will be changing the Minor degree to make this course a requirement for fulfilling the Minor. It is currently considered a core course that fulfills the creative process requirement for the minor. But we are finding that it is really an entry level course for all minors.

Item 14. COURSE CHANGE DESCRIPTION – GRALL—HEB 0001
From: Hedda Harari-Spencer, 617-627-2069, hedda.harari_spencer@tufts.edu
Department Chair: Greg Carleton, 617-627-5962, Greg.Carleton@tufts.edu
Current Number/Title: HEB 0001 Elementary Hebrew
Current Bulletin Description: For students with no previous knowledge of Hebrew. Study of fundamental speech patterns. Listening comprehension and oral ability, using audiovisual method. Progressively greater emphasis placed on reading and writing skills. Fall Semester
New Description: For students with no previous knowledge of Hebrew. Learning the fundamental structures of Hebrew and its basic forms, as well as the necessary vocabulary for everyday conversations, reading and writing on a limited scale. Fall Semester
Next Anticipated Offering: Fall 2015
Rationale. The rational for the course change is that it describes more accurately what we teach.

Effects. No change.

Item 15. COURSE CHANGE DESCRIPTION – GRALL—HEB 0002
From: Hedda Harari-Spencer, 617-627-2069, Hedda.Harari_Spencer@tufts.edu
Department Chair: Greg Carleton, 617-627-5962, Greg.Carleton@tufts.edu
Current Number/Title: HEB 0002 Elementary Hebrew

Current Bulletin Description: Study of fundamental speech patterns. Listening comprehension and oral ability, using audiovisual method. Progressively greater emphasis placed on reading and writing skills. Prerequisites: Hebrew 1 or equivalent. Spring Semester

New Description: Learning the fundamental structures of Hebrew and its basic forms, as well as the necessary vocabulary for everyday conversations, reading and writing on a limited scale. Prerequisites: Hebrew 1 or equivalent. Spring Semester

Next Anticipated Offering: Spring 2016

Rationale. The rational for the course change is that it describes more accurately what we teach.

Effects. No change.

Item 16. COURSE CHANGE DESCRIPTION – GRALL—HEB 0003
From: Hedda Harari-Spencer, 617-627-2069, Hedda.Harari_Spencer@tufts.edu
Department Chair: Greg Carleton, 617-627-5962, Greg.Carleton@tufts.edu
Current Number/Title: HEB 0003 Intermediate Hebrew

New Number/Title:

Bulletin Description: Rapid oral review of structural principles. Written exercises. Reading and discussion based on selected materials from Hebrew literature. Conducted mainly in Hebrew. Prerequisites: Hebrew 2 or equivalent. Fall Semester

New Description: Broadens the grammatical structures and vocabulary studied in Hebrew 2. Reading and discussing articles from the press and scientific journals adapted into simplified Hebrew. Prerequisites: Hebrew 2 or equivalent. Fall Semester

Next Anticipated Offering: Fall 2015

Rationale. The rational for the course change is that it describes more accurately what we teach.

Effects. No change.

Item 17. COURSE CHANGE DESCRIPTION – GRALL—HEB 0004
From: Hedda Harari-Spencer, 617-627-2069, Hedda.Harari_Spencer@tufts.edu
Department Chair: Greg Carleton, 617-627-5962, Greg.Carleton@tufts.edu
Current Number/Title: HEB 0004 Intermediate Hebrew

Current Bulletin Description: Rapid oral review of structural principles. Written exercises. Reading and discussion based on selected materials from Hebrew literature. Conducted mainly in Hebrew. Prerequisites: Hebrew 3 or equivalent. Fall Semester

New Description: Broadens the grammatical structures and vocabulary studied in Hebrew 3.
Reading and discussing articles from the press and scientific journals adapted into simplified Hebrew. Prerequisites: Hebrew 3 or equivalent. Spring Semester

Next Anticipated Offering: Spring 2016

Rationale. The rational for the course change is that it describes more accurately what we teach.

Effects. No change.

Item 18. COURSE CHANGE DESCRIPTION – GRALL—HEB 0021
From: Hedda Harari-Spencer, 617-627-2069, Hedda.Harari_Spencer@tufts.edu
Department Chair: Greg Carleton, 617-627-5962, Greg.Carleton@tufts.edu

Current Number/Title: HEB 0021 Conversation/Composition

Current Bulletin Description: Class conducted primarily in Hebrew. Readings will include contemporary Hebrew short stories and articles. Class discussions and compositions will be based on the literary texts, up-to-date news, and a selection of Israeli films. Prerequisites: Hebrew 4 or equivalent. Fall Semester

New Description: Reading and discussing adapted literary and scientific works as well as articles from the press. Becoming familiar with synonyms as well as expressions and idioms. Exposure to the Hebrew currently used in pop culture and everyday conversation. Focusing on the different verbal structures including exceptions to the rules, and becoming familiar with various syntactical structures. Prerequisites: Hebrew 4 or equivalent. Fall Semester

Next Anticipated Offering: Fall 2015

Rationale. The rational for the course change is that it describes more accurately what we teach.

Effects. No change.

Item 19. COURSE CHANGE DESCRIPTION – GRALL—HEB 0022
From: Hedda Harari-Spencer, 617-627-2069, Hedda.Harari_Spencer@tufts.edu
Department Chair: Greg Carleton, 617-627-5962, Greg.Carleton@tufts.edu

Current Number/Title: HEB 0022 Conversation/Composition

Current Bulletin Description: Continuation of Hebrew 21. The study of major works and problems of the twentieth century in Hebrew literature and in Jewish history. Readings will include works by Shahar, Liebrecht, Avnery, Levin, Hareven, and others. Discussions and compositions will follow the literary texts, films, and current events. Prerequisites: Hebrew 21 or equivalent. Spring Semester

New Description: Reading and discussing adapted literary and scientific works as well as articles from the press. Becoming familiar with synonyms as well as expressions and idioms. Exposure to the Hebrew currently used in pop culture and everyday conversation. Focusing on the different verbal structures including exceptions to the rules, and becoming familiar with various syntactical structures. Prerequisites: Hebrew 21 or equivalent. Spring Semester

Next Anticipated Offering: Spring 2016

Effects. No change.

Item 20. COURSE CHANGE DESCRIPTION – GRALL—HEB 0121
Item 21. COURSE CHANGE DESCRIPTION – GRALL—HEB 0122

From: Hedda Harari-Spencer, 617-627-2069, Hedda.Harari_Spencer@tufts.edu
Department Chair: Greg Carleton, 617-627-5962, Greg.Carleton@tufts.edu

Current Number/Title: HEB 0122 Composition and Conversation

Current Bulletin Description: The study of major works and problems of the twentieth century in Hebrew literature and in Jewish history. Readings will include works by Shahar, Liebrecht, Avnery, Levin, Hareven, and others. Discussions and compositions will follow the literary texts, films, and current events. Extra readings and written assignments. Prerequisites: Hebrew 121 or permission of the instructor. Spring Semester

New Description: Reading and discussing unadapted literary and scientific texts. Focusing on controversial issues in the press. Expanding knowledge of synonyms. Watching films and TV series without subtitles. Substantially broaden the vocabulary. Prerequisites: Hebrew 121 or permission of the instructor. Spring Semester

Next Anticipated Offering: Spring 2016

Rationale. The rational for the course change is that it describes more accurately what we teach.

Effects. No change.
Item 22. COURSE CHANGE TITLE AND DESCRIPTION --Physics and Astronomy—PHY 0061

From: Krzysztof Sliwa, 7-3332, ksliwa@tufts.edu
Department Chair: Roger Tobin, 7-5461, roger.tobin@tufts.edu

Current Number/Title: PHY 0061 Quantum Theory
New Title: Quantum Theory I

Current Bulletin Description: Fundamental theoretical basis for quantum mechanics with selected applications. Wave-particle duality, Schrodinger wave equation, energy quantization in bound state problems, wave packets and scattering, quantization of angular momentum, spin, entangled states, Pauli exclusion principle. Other topics may include perturbation theory, atomic structure, Bell’s theorem, quantum cryptography and computation. Recommended: PHY 13 and MATH 51 (formerly MATH 38). MATH 70 (formerly MATH 46) or MATH 150 (cross-listed as ME 151) and at least one physics course more advanced than PHY 13 are desirable but not required.

New Description: Fundamental theoretical basis for quantum mechanics with selected applications. Wave-particle duality, Schrodinger wave equation, energy quantization in bound state problems, wave packets and scattering, quantization of angular momentum, spin, entangled states, Pauli exclusion principle. Recommended: PHY 13 and Linear Algebra (MATH 70). Differential Equations (MATH 51) or Applications of Advanced Calculus (MATH 151) and at least one physics course more advanced than PHY 13 are desirable but not required.

Next Anticipated Offering: Fall 2015

Rationale. We are creating a new course, Quantum Theory II, to follow the current Quantum Theory. We thus need to change the name of the current course to Quantum Theory I, to avoid ambiguities. In addition, in its current description, linear algebra (MATH 70), is suggested, but not required, while differential equation (MATH 51) is mandatory. From experience in teaching it, and following comments from multiple students, it became clear that MATH 70 should be required for Quantum Theory and MATH 51 only encouraged. Finally, we must remove from the current description what will be covered in Quantum Theory II. We thus want to change the description accordingly. This has no impact outside the department.

Effects. This change has no effect on other courses, nor on the place this course has within the physics major.
Item 23. COURSE CHANGE TITLE AND DESCRIPTION --Physics and Astronomy—PHY 0064
From: Krzysztof Sliwa, 7-3332, kśliwa@tufts.edu
Department Chair: Roger Tobin, 7-5461, roger.tobin@tufts.edu
Current Number/Title: PHY 0064 Experimental Modern Physics
New Title: Advanced Experimental Physics
Current Bulletin Description: An advanced laboratory course featuring six experiments performed at two-week intervals. Typical experiments are the Cavendish experiment, the Millikan oil-drop experiment, the Franck-Hertz experiment, the Compton effect, positron annihilation, and the muon lifetime. Recommended: PHY 13.
New Description: An advanced laboratory course featuring six experiments performed at two-week intervals. Typical experiments are the Cavendish experiment, the Millikan oil-drop experiment, the Franck-Hertz experiment, the Compton effect, positron annihilation, and the muon lifetime. Intended primarily for juniors and seniors. Recommended: PHY 13.
Next Anticipated Offering: Spring 2016
Rationale. Too many students take this course early in their degree program (freshman or sophomore), while the course is intended more for junior and senior, in order to bring together what they learned in other classes. According to the students, the course title was suggesting to take this course directly after having taken PHY 13, which is an early course. Also, because it is one of the two mandatory courses required for a physics degree, students felt they have to take it earlier than later. This course can be taken earlier, but it is not necessarily in the interest of the students. To avoid that, a modification of the course title is proposed, and the description is modified to encourage students to wait for their junior or senior years to take this course. This change has no impact on any courses in the department or outside the physics department.
Effects. This change has no effect on other courses, nor on the course place in the major.

Item 24. COURSE CHANGE TITLE, NUMBER & DESCRIPTION - Physics and Astronomy—PHY 0082
From: William Oliver, 7-5364, william.oliver@tufts.edu
Department Chair: Roger Tobin, 7-5461, roger.tobin@tufts.edu
Current Number & Title: PHY 0062 Particle Physics
New Number & Title: PHY 0082 Nuclear and Particle Physics
Current Bulletin Description: Nuclear properties, the deuteron, nuclear magnetic and electric moments, nuclear models, radioactivity, nuclear energy, fission and fusion processes; properties of the elementary particles; quarks and leptons.
Recommended: PHY 13
New Bulletin Description: Nuclear properties, the deuteron, nuclear magnetic and electric moments, nuclear models, radioactivity, nuclear energy, fission and fusion processes; properties of the elementary particles; quark and leptons. Prerequisites: PHY 0013
Next Anticipated Offering: Spring 2016
Rationale. This course is already existing under the number PHY 0062 and entitled Particle Physics. However, we are creating a new course, Quantum Theory II, which will get the number PHY 0062, to match the physics courses numbering scheme (it is the second of the sequence PHY 0061 – PHY 0062). To adapt the particle physics course to the numbering scheme as well, we will use PHY 0082. We also want to introduce the word “nuclear” in the course title, because it reflects better the course content, as provided by the description in the bulletin. Finally, we
need to change this description to move PHY 0013 from being recommended, to being required.

**Overlap.** There is no overlap with other undergraduate courses at Tufts. The only department that can offer such a high-level physics course is the physics department. This course does not overlap with any other undergraduate course offered in the physics department. The changes proposed above have been discussed in a departmental meeting, where all potential instructors are present and have agreed on the changes.

**Resource Requirements/ Curricular Adjustments.** No new resources needed. The instructor will be teaching the course and he/she will also be responsible for grading and course management. This is not really a new course, just a renaming, renumbering and a small change to the course description.

**Requirements.** This course is not a physics major requirement, but counts toward the physics major.

**ARB Review:**

*Distribution Credit Natural Sciences*

---

**Item 25. CHANGE PROGRAM – Psychology—Cognitive and Brain Sciences Major**

*From: Sam Sommers, 7-5293, sam.sommers@tufts.edu*

*Department Chair: Lisa Shin, 7-2251, lisa.shin@tufts.edu*

**Bulletin Description:** This major consists 14 courses, including the following 6 requirements:

- Intro to Cognitive and Brain Sciences (PSY 9), Statistics (PSY 31 or CD 140), Experimental Psychology (PSY 32), Intro to Linguistics (Philosophy 16/Psychology 64), Intro to Computer Science (Computer Science 11), and Data Structures (Computer Science 15).

Three intermediate courses are required, one from each of the following groups:

- **Group A:** Psychology 11, 25, 26, 27, 28, 103, Child Development 51;
- **Group B:** Computer Science 131, 150BBR, 150MOD, 171;
- **Group C:** Philosophy 3, 33, 103, 191-02, Psychology 150, 151, 155.

Four advanced courses are required, drawn from at least two of the following groups:

- **Group 1:** Psychology 80, 103, 112, 117, 118, 122, 123, 124, 126, 127, 129, 131, 139, 140, 142, 144, 145, 146, 148, 154;
- **Group 2:** Psychology 149, 150, 151, 152, 153, 155, 180, Child Development 152, 155, 156, 177, 195, 243, Education 114;
- **Group 3:** Computer Science 86, 105, 131, 135, 150BRR, 150MOD, 170, 171;
- **Group 4:** Philosophy 38, 114, 117, 126, 132, 133, 134, 170, 191-02 (note that for all four groups, courses may only be used if not counted as intermediate courses as described above).

Advanced research experience is also required. Three options are available, all of which involve enrolling in Senior Seminar in Cognitive and Brain Sciences (Psychology 195).

- **Option 1** is a senior honors thesis in psychology, child development, computer science, or philosophy.
- **Option 2** is a year-long research experience working with a faculty member from either psychology, philosophy, child development, computer science, or the neuroscience department at the medical school. Students pursuing this route will be required to present a final version of their research during senior seminar.
- **Option 3** is a senior review paper of the literature in one of the areas listed above.

**New Description:** This major consists of 14 courses, including the following 8 requirements:

- Intro to Psychology (PSY 1), Intro to Cognitive and Brain Sciences (PSY 9), Statistics (PSY 31 or CD 140), Experimental Psychology (PSY 32), Intro to Linguistics (Philosophy
16/Psychology 64), Intro to Computer Science (Computer Science 11), and Data Structures (Computer Science 15), Senior Seminar in Cognitive and Brain Sciences (PSY 195).

Three intermediate courses are required, one from each of the following groups:
Group A: Psychology 11, 25, 26, 27, 28, 103, Child Development 51;
Group B: Computer Science 131, 150BBR, 150CMCS (formerly 150MOD), 171;
Group C: Philosophy 3, 33 or 103, 191-02, Psychology 150, 151, 155.

Three advanced courses are required, drawn from at least two of the following groups (note that for all four groups, courses may only be used if not counted as intermediate courses as described above; only one course from the groups below may be independent study or directed research):
Group 1: Psychology 80, 91, 92, 103, 112, 117, 118, 122, 123, 124, 126, 127, 129, 131, 139, 140, 142, 144, 145, 146, 148, 154, 191, 192, 199;
Group 2: Psychology 149, 150, 151, 152, 153, 155, 180, Child Development 142, 152, 155, 156, 177, 195, 243, Education 114;
Group 3: Computer Science 86, 105, 131, 135, 150BBR, 150CMCS (formerly 150MOD), 171, 193, 194;
Group 4: Philosophy 38, 114, 117, 126, 132, 133, 134, 170, 191-02

Majors are encouraged to complete a senior research project which entails either (a) completing an honors thesis in Psychology, Child Development, Computer Science, or Philosophy; (b) completing a year-long research experience with a faculty member in one of these departments or with a faculty member in the Neuroscience Department of the Medical School; or (c) completing a faculty-supervised review paper of the literature on a particular issue within one of these areas.

Rationale. 1) The basis for the inclusion of PSY 1 as a required course is that a great deal of introductory-level psychology is needed for successful completion of PSY 9 and other required courses. Instructors of PSY 9 (and upper-level courses) have noted that students without PSY 1 (which was previously recommended but not required) often struggle given their lack of familiarity with basic concepts and approaches within the field of psychology. 2) These changes reflect new curricular additions in the different departments contributing to the major as well as updates to existing courses in those departments. 3) This senior research requirement has proven to be a challenge since the inception of the major. With steadily increasing numbers of students declaring the major, finding sufficient faculty supervisors for 25+ independent research projects and papers each year proves increasingly difficult. Moreover, there remains confusion as to what type of research experience does and not qualify for this requirement as written (i.e., working as a research assistant on an existing project versus creating a new, independent line of inquiry). The general psychology concentration does not require research from its majors-- it encourages such experience, while requiring proficiency with research design and analysis by virtue of completing courses such as PSY 31 and 32. The current revisions will apply the same, still-high standards to CBS majors, while continuing to recommend independent research experience. Those students will plans for graduate study will still, no doubt, pursue such opportunities. Those with other career objectives may decide not to.

Overlap. N/A

Resource Requirements/ Curricular Adjustments. Slight increases to enrollment of PSY 1. If anything, change 3) above will reduce the currently untenable demand on faculty (mostly in Psychology) with regard to supervision of required senior research.

Planning. These changes have been approved by a vote of the faculty of Psychology and vetted
with department chairs and key stakeholders in the departments of Child Development, Computer Science, and Philosophy.

Chair Role Approval. The proposed changes have been approved by a vote of the faculty of Psychology and vetted with department chairs and key stakeholders in the departments of Child Development, Computer Science, and Philosophy.