Description of the course: The course is an introduction to topology. From point-set topology we will cover the notion of topological space and continuous map, compactness, connectedness, and separation properties. Among the fundamental results covered will be: Urysohn’s metrization theorem, the Tietze extension theorem, and the Stone-Cech compactification. From algebraic topology we will cover: homotopy and the fundamental group, covering spaces, simplicial homology and the Euler characteristic. This will include the Seifert-van Kampen theorem, and a proof of the Gauss-d’Alembert fundamental theorem of algebra. From low dimensional topology we will cover the Jordan separation theorem and the classification of surfaces.

Learning outcomes: Upon completion of this two-semester series, students should master concepts of point-set topology well enough so that they can apply them to fields outside of topology such as: real and complex analysis, differential geometry, or the theory of differential equations.

Assessment of learning outcomes: There will be one midterm exam and one final exam each semester. Together they amount to half of the grade, and they will problem-based and designed such as to boost student’s performance on the Preliminary Examination. The other half of the grade will come from homeworks and student’s classroom performance. Attendance will be taken into account.

How to study? Take careful notes during the lecture. Collect these notes in a well organized folder. Follow all explanations carefully, and ask questions whenever you don’t understand something. Try to answer instructor’s questions. Before each class update your knowledge by browsing through your notes. Every once in a while, preferably every week, try to learn the material up to date, by reading the notes and the book. Do your homeworks carefully.
Other matters:
1. The instructor should be addressed as Răzvan, with the first “a” pronounced such as in “girl” or “pearl”, and with the accent placed on the second “a”.
2. “If you cannot take a certain test, please announce the instructor at least three days in advance. After the test, only medical excuses will be accepted. However, there is one exception. Texas House Bill 256 requires institutions of higher education to excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day. The student shall also be excused for time necessary to travel. An institution may not penalize the student for the absence and allows for the student to take an exam or complete an assignment from which the student is excused.” No prior notification of the instructor is required, but is encouraged.
3. “Any student who, because of disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor’s office hours. Please note that instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office at 335 West Hall or 806-742-2405.”