1139-53-666   **Rebecca Glover***, rebecca.glover@stthomas.edu, and **Sema Salur**. *Lagrangian-type submanifolds of G_2 and Spin(7) manifolds.*

The study of Lagrangian submanifolds has played a fundamental role in furthering the field of symplectic geometry. Lagrangian submanifolds reveal information about Hamiltonian mechanics, symplectic rigidity, and local invariants of symplectic manifolds. Further, a deeper understanding of Lagrangian submanifolds has provided insight towards establishing a correspondence between Calabi-Yau mirror pairs in Kontsevich's homological mirror symmetry via the Fukaya category. In this talk, we discuss the analogues for Lagrangian submanifolds in G_2 and Spin(7) geometry. We will discuss properties of these submanifolds as well as their deformation spaces. This is joint work with Sema Salur. (Received February 20, 2018)