## **CS454: Essentials of Developing Windows Apps**

Each week the students are required to design two apps and get them certified in the store, these are the app types that they are suppose to create.

- 1. Replicate Apps, Students will be required to utilize two simple and easy to use replicate templates to:
  - a. Create an app that shows subjects of interest to them using RSS feeds
  - b. Create an exam app for physics, biology or other science topics
  - c. Place both apps in the store for certification
- 2. Game Design applications students will be required to create two games:
  - a. Create a platform type of app with a start page and Replay page
  - b. Create a "8-way type of app with a start page and Replay page
  - c. Place both apps in the store for certification
- 3. Design and implement replicate apps in XAML/C++
  - a. Create an app that consumes RSS feeds, allows easy modification
  - b. Create an app that can be used for training
  - c. Place both apps in the store for certification
- 4. Games and more games
  - a. Generate a multiple layer game using either platformer or 8 Way
  - b. Generate a multiple layer game using Tower Defense
  - c. Place both apps in the store for certification
- 5. Design and implement two apps that solve a simple problem in:
  - a. Geometry
  - b. Trig
  - c. Place both apps in the store for certification (this is seriously easy, please don't freak because it is math)
- 6. Design and implement two apps that solve a physics problem, without complex graphics, related to:
  - a. Theory of Relativity (don't freak it is EASY, achieving near light speed is hard, if you are not a photon)
  - b. Momentum
- 7. Design and implement 2 apps that solve a biology, geology or science problem of interest to you, for example:
  - a. Bacteria growth
  - b. Probability of an earthquake, see Cal Tech website for information
- 8. Back to games, using a new tool called TouchDevelop design and certify
  - a. A whack a mole game (template exists and ready to use)
  - b. Board game, simple implementation and template
- 9. Using XAML/C# or XAML/VB create two simple physics app
- 10. Design two apps using any tool