Projects:

1. Constraints in a triangulation
2. Isomorphic triangulations, Steiner points, spider-web
3. Study the number of non-isomorphic triangulations for a polygon with n vertices
4. Two ears theorem; one mouth theorem
5. Voronoi's diagram: divide and conquest algorithm
6. Describe an algorithm to obtain a Delaunay triangulation after inserting a new point in a given Delaunay triangulation.
7. When a spatial PH cubic is a helix?

Exercises:

1. Adding an interior point in an existing triangulation implies that the number of triangles (resp. edges) changes. How?
2. Study triangulations with the property that all vertices have the same degree. Draw at least one triangulation for every possible case (eventually imposing the condition of having the minimum number of vertices).
3. Draw the beach lines for three given points P1, P2, P3 at an arbitrary position of the sweep line. As a particular case we take: P1(-2,4), P2(0,0) and P3(2,2) and the horizontal sweep lines are
    a. y0=3
    b. y0=2
    c. y0=0
    d. y0=-1
    e. y0=-2.

    Study the same problem when P3 changes to (5,2).