What is it:
Design and test a card game based on the design constraints described below.

Design constraints:
- You will use ordinary playing cards.
- The object of the game will be to gather a complete human family (King, Queen and Jack) experiment on them and then return them to Earth.
- Some suits of the non-face cards will have specific meaning:
  - Hearts ♥: Life support for the humans
  - Clubs ♣: Cloaking (to prevent detection)
  - Spades ♠: Fuel for the space ship
- You may choose to use Diamonds for any other gameplay purpose (or you may elect not to use them.)
- The game should be playable by 2-4 players, and should not take more than 30 minutes per deal.

Design issues:
It may sound like all of the game elements are in place, but they are not. These constraints only represent the very beginning of a design. Here are the primary design issues your group will need to consider:
- Process of gameplay:
  - Arrangement of cards: Are players dealt all their cards at the start? If all cards are not dealt, do players draw cards? Are the humans kept separate? How are they acquired/discovered?
  - Actions: Is there a relationship between turns and consumption of fuel, life support, etc? What happens if supplies run out before the mission is completed?
  - Conflict: What is the nature of the conflict between the players? Are players competing directly to abduct the same humans and with the potential of interfering with each other? Or are the players competing indirectly each trying to complete her mission first?
  - Representation: How is the idea of "detection" represented? How does the player know their status relative to the other players?
- Balance:
  - Risk vs reward: What are the costs for player actions and how are those costs balanced with the rewards?
  - Random elements: Should there be cards that represent special bonuses or hazards: a inquisitive reporter, a warp drive upgrade? How many and what should their consequences be?
  - Value: How are the different cards valued: by face value (a 3 ♠ could represent 3 days fuel) or by some simpler scheme (all ♠ = 1 day)? If face value is used, do players keep track of fractional supplies or are they discarded?

There is no way to resolve these design issues without coming up with a set of rules and playing the game to test them. While you are testing, think about how well the game is working. What sorts of decisions do the rules force players to make? How do players succeed? How easy and fun are the gameplay processes for the players?

What to do:
- Meet early and often with your group. One member will be designated by the instructor to be the leader. It will be this person's responsibility to coordinate meetings: before and after class sometimes works well.
• Each meeting should have a specific objective. The first meeting should be a brainstorming meeting in which you arrive at a rough consensus about how to approach the basic design issues, especially the gameplay ones, come up with an initial set of rules and attempt to play the game. The outcome of this meeting should be some written notes on the decisions made and the game that resulted.

• Subsequent meetings should focus on playing the game and tuning it. It will be very important to document the rule changes that you make, the reasons for them and the impact that they seem to have on the play. The responsibility for these notes can be rotated among the group members and they can be circulated via email. If you maintain this kind of design documentation, it will be easy to put together your draft design when you need to produce it.

• When your game has begun to take shape, try to come up with a catchy name for it. You can do this earlier, but it is sometimes better to see how the game ends up before naming it.

• After the draft design is complete, you should focus on how to present your game to the class. Note that everybody has the same assignment with the same constraints. It is not necessary to tell us that Clubs = Fuel. Your presentation should focus very narrowly how you resolved the design issues above: how you represented space, how you associated values with the cards, etc. You will have no more than 10 minutes to present, so plan to be very concise and to the point – 5 slides is probably the most you should have.

What to turn in:

• 5/1: Submit a Microsoft Word document containing a draft of the rules of your game to the CTI Course On-Line (http://dlweb.cs.depaul.edu/) site under the heading "Design Project #1: Draft design." It is the designated group leader's responsibility to do this.

• 5/7: Submit your PowerPoint slides for a 6 minute presentation to the Course On-Line (COL) site under the heading "Design Project #1: Presentation." I will download these presentations and have them available on the in-room computer during class on 5/8.

• 5/8: The entire team should be present in class for the presentation of the design.

• 5/8: Submit a Microsoft Word document containing the final rules for your game to the COL site under the heading "Design Project #1: Final design."

Hints and Notes:

• Play attention to the complexity of bookkeeping when designing your "economy" of supplies vs. distance. A simple scheme will most likely be the best.

• Save the incorporation of bonus/hazard cards until late in the process when you can see where the gameplay needs to be "spiced up". Such cards will add an element of uncertainty to the game – figure out where it is needed.

• Since the precise play of the game will depend on the deal of the cards, potential gameplay problems may not arise in a single deal and playtest. You might even want to try stacking the deck in various ways to see what sorts of play result.

• When your game begins to take shape, you may want to play it with friends outside of class and bring their reactions back to the group.