Assignment 12: Due Dec 17, 2017

- * Please name your homework file as 'Assignment12_your name.pdf' in pdf format and send it at biostat_sjtu@163.com, thanks for your cooperation.
- 1. The chair of the psychology department sent a questionnaire to all students who graduated from the program during the past 10 years. One question asked whether the student attended a graduate program, and the type of program attended. Of the students returning questionnaires, 88 indicated that they were in or had completed a Ph.D. program. a. Can the chair assume that graduates of the department equally attended each of the seven programs?

| Program | Number of Students |
|---------------------------|--------------------|
| Clinical | 12 |
| Counseling | 23 |
| Developmental | 8 |
| Experimental | 7 |
| Industrial/Organizational | 15 |
| Physiological | 5 |
| Social | 18 |

2. In a study concerned with the relationship between blood type and gastrohelcoma/gastric cancer. The results of this study are shown in the accompanying table.

| Blood type | Gastrohelcoma | Gastric cancer | Normal |
|------------|---------------|-------------------|--------|
| 0 | 1980 | 20 | 250000 |
| A | 1340 | 18 | 210000 |
| В | 300 | 10 | 150000 |
| AB | 360 | 12 | 140000 |

Set up this study in formal statistical terms, and try to answer is there a relationship between blood type and gastrohelcoma/gastric cancer.