

105 學年度 暑期 0808 微積分學前預備課程 甲組 (學習 Chapters 1~27)

0809 微積分學前預備課程 乙組 (學習 Chapters 1~20 不含 \*主題)

### 學習進度

| 日期  | 內容主題   |   | 授課方式                |       |
|---|--|---|---------------------|-------|
| 105/08/9<br>2:00~4:00 PM                          | 報到處：領取 講義及學習須知<br>茂榜廳：課程介紹、磨課師系統介紹、<br><br>登入說明、考試說明、Q&A |   | 實體課程<br><br>(兩場說明會) |       |
| 105/08/16<br>2:00~4:00 PM                         |  |   |                     |       |
| 08/10~09/4 帳號審核通過後即可進入磨課師系統開始線上學習，每週 6 天，共需 2~3 週 |  |   |                     |       |
| 學習日程<br>(彈性)                                      | 章節   | 內容主題                                      | 線上學習                |       |
|   |  |   | 習題數                 | 影片長度  |
| Day 1   | 1  | Real numbers                              | 2                   | 08:05 |
|   | 2  | Polynomials                               | 4                   | 10:24 |
| Day 2   | 3  | Exponents and Radicals                    | 6                   | 12:04 |
|   | 4  | Rational Expressions                      | 5                   | 07:54 |
| Day 3   | 5  | Linear and Nonlinear Equations            | 6                   | 16:46 |
| Day 4   | 6  | Linear and Nonlinear Inequalities         | 3                   | 10:16 |
|   | 7  | Absolute Value Equations and Inequalities | 3                   | 05:23 |
| Day 5   | 8  | Analytic Geometry                         | 7                   | 11:35 |
| Day 6   | 9  | Functions                                 | 5                   | 12:44 |
|   | 10   | Linear Functions                          | 8                   | 08:11 |
| Day 7   | 11   | Transformations and Graphs                | 3                   | 07:13 |
|   | 12   | Quadratic Functions                       | 6                   | 08:34 |

|                            |    |  |      |       |
|----------------------------|----|--|------|-------|
| Day 8                      | 13 | Algebra of Functions & Inverse Functions                 | 8    | 17:21 |
| Day 9                      | 14 | Polynomial Functions                                     | 10   | 17:31 |
| Day 10                     | 15 | Rational Functions                                       | 4    | 10:07 |
|                            | 16 | Exponential Functions                                    | 3    | 07:24 |
| Day 11                     | 17 | Logarithmic Functions                                    | 6    | 11:29 |
|                            | 18 | Exponential and Logarithmic Equations                    | 3    | 05:19 |
| Day 12                     | 19 | Ellipses and Hyperbolas                                  | 4    | 10:41 |
|                            | 20 | Conic Sections   | 1    | 04:22 |
| Day 13 *                   | 21 | Trigonometric Functions of Real Numbers *                | 11   | 12:47 |
| Day 14 *                   | 22 | Trigonometric Functions of Angles *                      | 6    | 17:44 |
| Day 15 *                   | 23 | Addition, Subtraction, Double- and Half-Angle Formulas * | 10   | 11:04 |
| Day 16 *                   | 24 | Trigonometric Graphs *                                   | 1    | 10:31 |
|                            | 25 | Inverse Trigonometric Functions and Graphs *             | 1    | 08:50 |
| Day 17 *                   | 26 | Trigonometric Equations *                                | 3    | 06:02 |
|                            | 27 | The Laws of Sine and Cosine *                            | 1    | 13:50 |
| 105/09/5<br>10:20~11:50 AM |    | 課程評量 40 題<br>社科院：SS201, SS202, SS205, SS206              | 實體課程 |       |

### 評分方式

只有 1 次評量 ( 100% ); 課後練習、線上學習狀況、勘誤 ( extra points )

### 參考書籍

Precalculus, 1e, Shu-Yi Tu Print Year: 2016

### 修課限制

修課人數：360 人 大一新生 選修。