

**Schedule of 2310360 BBTech (3<sup>rd</sup> year students)**

First semester, Academic year 2024, Room 504, 5th floor, Klum Vatcharobon building

|                     | Date                               | LAB time                                                                                                                                | Discussion I   | Discussion II | Total no. | Group no. |       |
|---------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-----------|-----------|-------|
| Section 51:         | WED                                | 9.00 am. – 12.00 pm.                                                                                                                    | TAB 221        | TAB 221       | 49        | 4         |       |
| Coordinator         | Dr.Pawinee (pawinee.p@chula.ac.th) |                                                                                                                                         |                |               |           |           |       |
| Staff               | K.Araya + K.Sahanut                |                                                                                                                                         |                |               |           |           |       |
| Date                | Week                               | Topic                                                                                                                                   | Lecturer       |               |           |           |       |
|                     |                                    |                                                                                                                                         | Sub-coor       | Gr. 1         | Gr. 2     | Gr. 3     | Gr. 4 |
| 7-ส.ค.-24           | 1                                  | Lab instruction, instrument checking, and best lab practice and safety + chemical calculation and pipette using                         | Pawinee+ Alisa |               |           |           |       |
| 14-ส.ค.-24          | 2                                  | no class (National mother day: 12 Aug 2024)                                                                                             |                |               |           |           |       |
| 21-ส.ค.-24          | 3                                  | Buffer preparation                                                                                                                      | Rath           |               |           |           |       |
| 28-ส.ค.-24          | 4                                  | Concentration determination by spectrophotometry                                                                                        | Tanakarn       |               |           |           |       |
| 4-ก.ย.-24           | 5                                  | Protein properties and quantitation                                                                                                     | Kuakarun       |               |           |           |       |
| 11-ก.ย.-24          | 6                                  | Enzyme kinetics                                                                                                                         | Supaart        |               |           |           |       |
| 18-ก.ย.-24          | 7                                  | Discussion I: Weeks 1 and 3 - 6 (5 labs)                                                                                                |                |               |           |           |       |
| 23 -27 Sep 23       | 8                                  | Midterm exam: (Mid-term examination: 23 - 27 Sep 2024); 25 Sep 2024 08.30 - 10.30 a.m.                                                  |                |               |           |           |       |
| 2-ต.ค.-24           | 9                                  | no class (Commencement days: 2 - 4 Oct 2024)                                                                                            |                |               |           |           |       |
| 9-ต.ค.-24           | 10                                 | Carbohydrate metabolism and properties of cell membrane                                                                                 | Pawinee        |               |           |           |       |
| 16-ต.ค.-24          | 11                                 | No class (Substitute holiday on 14 Oct 2024)                                                                                            |                |               |           |           |       |
| 23-ต.ค.-24          | 12                                 | No class (Holiday on 23 Oct 2024)                                                                                                       |                |               |           |           |       |
| 30-ต.ค.-24          | 13                                 | DNA isolation and quantitation                                                                                                          | Vorrapon       |               |           |           |       |
| 6-พ.ย.-24           | 14                                 | PCR technique and disease diagnosis                                                                                                     | Pattana        |               |           |           |       |
| 13-พ.ย.-24          | 15                                 | DNA cloning and regulation of gene expression                                                                                           | Kittikhun      |               |           |           |       |
| 20-พ.ย.-24          | 16                                 | Discussion II: Weeks 10 and 13 - 15 (4 labs)                                                                                            |                |               |           |           |       |
|                     |                                    | Return the locker keys and compensate for any broken stuff                                                                              |                |               |           |           |       |
| 25 Nov - 9 Dec 2024 | 17                                 | Final exam: "Protein" to "Gene expression regulation" (Final-term examination: สอบ 25 Nov - 9 Dec 2024); 02-Dec-2024 08:30 - 10:30 a.m. |                |               |           |           |       |

| Schedule for 2310302                                                             |      |                                                     |            |
|----------------------------------------------------------------------------------|------|-----------------------------------------------------|------------|
| RAD TRACE BIOCHEM (2 credits)                                                    |      |                                                     |            |
| First semester (2024)                                                            |      |                                                     |            |
| Time: WE 11.00 - 12.00 Room: 503                                                 |      | Co-ordinator: Nuchanat                              |            |
| TH 11.00 - 12.00 Room: 503                                                       |      |                                                     |            |
| Topic                                                                            | Hrs. | Date                                                | Instructor |
| Introduction and properties of Radioisotopes                                     | 8    | 7, 8 (นั้ดนอกเวลา), 14, 15, 21, 22, 28, 29 Aug 2024 | Nuchanat   |
| Nuclear instrumentation and Measurements                                         | 4    | 4, 5, 11, 12 Sep 2024                               | Tanakarn   |
| Radiation safety and protection                                                  | 3    | 18, 19 Sep 2024 (ที่เหลือนั้ดนอกเวลา)               | Tanakarn   |
| Mid-term examination: สอบ 23 - 27 Sep 2024; 23 ก.ย. 2567 เวลา 13:00-15:00 น.     |      |                                                     |            |
| Application of radioisotopes                                                     | 7    | 9, 10, 16, 17, 24 Oct 2024 (ที่เหลือนั้ดนอกเวลา)    | Alisa      |
| Radioimmunoassay                                                                 | 6    | 30, 31 Oct, 6, 7, 13, 14 Nov 2024                   | Manchumas  |
| Final-term examination: สอบ 25 Nov - 9 Dec 2024; 3 ธ.ค. 2567 เวลา 13:00-15:00 น. |      |                                                     |            |