

**IPB 300/200**

**TROPICAL ANIMAL NUTRITION AND FEED TECHNOLOGY**

**SUMMER COURSE 2025**



**Coordinator:**

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**Topic: Sustainable Livestock Production: Exploring Nutrition, Innovation, and Conservation**

**Course Description:**

A comprehensive exploration of cutting-edge practices in meat and draught animal nutrition, alternative feeding strategies, and conservation of endemic Indonesian livestock

**Course Objectives:**

1. To help students understand sustainable tropical livestock production methods in various scales.
2. To help students develop skills in formulating nutritious animal feed.
3. To help students understand the purpose, proper usage, and impact of various management techniques.
4. To help students understand the problems and status of livestock production in the tropics.
5. To help students understand the economic value and marketing potency of livestock production and other animal products.
6. To foster appreciation for endemic livestock diversity.
7. To facilitate networking among professionals and future leaders.

**Course Information**

Students enrol in this course through [ipb.link/isc-2025](https://ipb.link/isc-2025) and will earn 2 or 3 credits for this 3-Week Summer Program.

The course is conducted in two types, i.e.

1. **Hybrid** which consists of an online course, field visit, and project examination (3 credits).
2. **Full online** which consists of an online course and project examination (2 credits)

In the online program, all materials will be found on [ocw.ipb.ac.id](http://ocw.ipb.ac.id). The students can work at their own pace as long as they are meeting specified completion dates. All deadlines are at 11:59 pm of the specified date.

- **Modules**

The course is divided into 14 modules consisting of a combination of video lectures, discussions, readings, and other activities. Module assessments, quizzes, and activities must be completed by the time the module closes.

- **Assessment**

Each module will have a terminology exercise where students must achieve 80% to advance. Students will be given as many attempts as necessary to meet the threshold.

- **Discussions and activities**

Almost every week, there will be a discussion or other activity that is relevant to the week's topic. The activities may include reading and reflecting on a scientific paper, making observations in a grocery store, or other projects. A rubric will be provided setting the parameters of the discussion and how points will be assigned.

- **Assignment**

There will be two assignments covering that module's content and terminology. The first assignment will be conducted at the end of the online course program, while the second assignment will be conducted at the end of the field visit.

- **Late assignments/ Make-up work**

Since this class is online, students are free to work ahead if a time conflict is upcoming and from wherever they have internet access. If a student requires an extension, they must request it prior to the assignment's deadline and have reasonable justification. Late assignments will be docked 10% every 24 hours from when they were originally due.

- **Field visit**

The program includes field visits that will complement the online program. Field visits may include:

1. Feed Manufacture Laboratory
2. Equine Facilities
3. Sheep Farms
4. Deer Conservation Area
5. White Cauldron at Patuha Mountain
6. Bogor Palace/Botanical Garden

## TIME CALCULATION

| Activities        | Account | Hours | Total |
|-------------------|---------|-------|-------|
| Online Courses    | 13      | 2     | 26    |
| Offline Courses   | 1       | 3     | 3     |
| Task              | 14      | 2     | 28    |
| Field Visit       | 5       | 8     | 40    |
| Discussion        | 5       | 4     | 20    |
| Cultural Exchange | 5       | 2     | 10    |
| Paper preparation | 1       | 8     | 8     |
|                   |         |       | 135   |

## EXCURSIONS

Students on summer course programs travel all around West Java as part of their program. Indonesia has a cultural history, beautiful mountain views, and geology. Typically include overnight or day trips/tours in Bogor, Lembang, and Bandung. For overnight excursions, students typically stay in double-occupancy hotel rooms.

## FIELD ACTIVITIES FOR PERSONAL STUDY

Following an introductory session on the first day of the field visit, the student cohort will be divided into groups of two to three students who will be under the guidance of their individual tutor. There will be group tutorials each day between students and staff, during which each student's work will be discussed with support and advice given by the team.

The summer course takes the form of a short design project containing a range of achievable elements from field visits. Full online students should review papers according to the specified topic that relates to the field visits program.

Students will use their personal time to develop their own responses to the brief. As their project work develops, they will be supported by the summer course staff/assistant in person, and, after the on-campus time.

A group presentation on Friday will enable all students attending to learn about the work of others in the group. The presentation will be conducted in front of senior lecturers in the meeting room (with online participants through a zoom meeting). The best paper and presentation will receive recognition and academic rewards.

## SCHEDULE\*

Important Dates:

Online registration : March 15 – May 30, 2025

Online courses : July 10 – 19, 2025

Field visit : July 20 – 24, 2025

Final examinations : July 25, 2025

## COURSE SCHEDULE\*

| Date | Course topics  | Lecturers                             | Affiliation   |
|------|--|---------------------------------------|---|
| 10   | Opening program  |                                       |   |
|      | Foster Development of Garut Sheep for Indonesian Livestock   | Prof. Dr. Asep Sudarman               | IPB University  |
|      | The Importance of Preserving Buffalo as Unique Livestock   | Assoc. Prof. Hasliza Abu Hasyim, Ph.D | University Putra Malaysia (Malaysia)                        |
| 11   | Role of Nutrition in Enhancing Animal Immunity and Productivity in Tropical Regions                      | Prof. Cheol Heui Yun, Ph.D            | Seoul National University (South Korea)                     |
|      | Innovative Approaches to Support Animal Feed and Promote Sustainable Farming System                      | Prof. Dr. Erika B. Laconi             | IPB University  |
| 14   | Optimizing Livestock Productivity in Tropical Regions Through Sustainable Nutrition Strategies in Uganda | Dr. Joelias Nasaka                    | Makerere University (Uganda, Africa)                        |
|      | Challenges and Opportunities to Develop Poultry Feed Industry  | Dr. Sahera Nofyangtri*                | Gold Coin Feed Company (Indonesia)                          |
| 15   | Innovative Approaches to Improve Tropical Silage Quality Using Plant Bioactive Compounds                 | Dr. Vincent Niderkorn*                | INRA (Institut national de la recherche agronomique/French) |
|      | Forage Complete Feed as Innovative Nutritious Feed Conservation  | Prof. Dr. Luki Abdullah               | IPB University  |
| 16   | Develop Innovative Feed Products for Sustainable Supply  | Prof. Dr. Yuli Retnani                | IPB University  |
|      | Discover Effective Marketing Techniques for Animal Products  | Dr. Burhanuddin                       | IPB University  |
| 17   | Enhance Understanding of Research Based on Meta-Analysis   | Prof. Dr. Anuraga Jayanegara          | IPB University  |
|      | Develop a Feed Database to Control Feed Quality and Sustainability in Indonesia                          | Prof. Dr. Despal                      | IPB University  |
| 18   | Develop Skills in Formulating Nutritious Feed  | Prof. Dr. Sri Suharti                 | IPB University  |
|      | Feed Formulation Practices   |                                       |   |
| 19   | Mid-Assignment   |                                       |   |
| 20   | Welcoming to Jakarta – Bogor   | Dr. Annisa Rosmalia                   |   |
| 21   | Opening Ceremony   | Dr. Dilla M. Fassah                   | IPB University  |
|      | Campus Tour  | Dr. Nisa Nurmilati B.                 | IPB University  |
|      | Feed Manufacture Lab.  | Dr. Heri A. Sukria                    |   |
|      | Bogor Palace - Bogor Botanical Garden  | Dr. Annisa Rosmalia                   |   |
| 22   | Equine Farm  | Dr. Dilla M. Fassah                   | Sentul  |
|      | Traveling to Bandung   |                                       |   |
| 23   | Deer Conservation Area   | Dr. Annisa Rosmalia                   | Ranca Upas  |
|      | Kawah Putih  |                                       | Ciwidey   |
| 24   | Optimizing Forage Supply for Sheep Production on Small-scale Farm  | Dr. Mansyur                           | Padjadjaran University                                      |
|      | Sheep Community Farm   |                                       | Cikalong Wetan  |
|      | Traveling Back to Bogor  |                                       |   |
| 25   | Final Exam: Paper and Student Presentation   | Dr. Dilla M. Fassah                   | IPB University  |
|      | Farewell Party   |                                       | IPB University  |

\*under confirmation

## LEARNING OUTCOME AND TIME

| Learning Outcome                 | Learning Hours |
|----------------------------------|----------------|
| Endemic Animal Conservation      | 360            |
| Animal Nutrition                 | 240            |
| Feed Innovation                  | 600            |
| Feed Industry and Management     | 480            |
| Sustainable Livestock Production | 480            |
| Feed Formulation Training        | 480            |
| Economic Value of Animal Product | 240            |
| Feed Research Database           | 480            |
| Equine Management                | 480            |
| Sheep Feeding and Management     | 480            |
| Dairy Farming Management         | 480            |
| Forage Science                   | 480            |
| Cultural Exchange                | 900            |
| Communication and Teamwork       | 1440           |
| Presentation Technique           | 480            |
| Total                            | 8100/135       |