

**نموذج توصيف مقرر**  
**Course Description Form**

Name of College\Faculty :

اسم الكلية:

Name of Department:

اسم القسم العلمي:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                         |                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------|
| Course Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Laboratory Techniques in Animal Biology | اسم المقرر                                                |
| Course No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0493-200                                | رقم المقرر                                                |
| No. of Credits                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3                                       | عدد الوحدات                                               |
| Theoretical Hours                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1                                       | عدد الساعات النظرية                                       |
| Practical Hours                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2                                       | عدد الساعات العملية                                       |
| Course topics                                                                                                                                                                                                                                                                                                                                                                                                                                                              | مواضيع المقرر                           |                                                           |
| <ol style="list-style-type: none"> <li>1. Fundamental Laboratory Techniques</li> <li>2. Animal Handling</li> <li>3. Animal Preservation</li> <li>4. Purification Techniques</li> <li>5. Histological Methods</li> <li>6. Techniques in Animal Tissue Culture</li> <li>7. Techniques in Immunology.</li> <li>8. Quantification and Data Collection.</li> <li>9. Introduction to Phylogenetic Analysis</li> <li>10. Application of Statistical methods in Zoology</li> </ol> |                                         |                                                           |
| Text book: (Name, Author , Year , Publisher)                                                                                                                                                                                                                                                                                                                                                                                                                               |                                         | عنوان الكتاب : ( الاسم ، المؤلف ، سنة الطبع ، دار النشر ) |
| Practical Skills in Biology (2022). 7th edition. Allan Jones, Rob Reed and Jonathan Weyers. Pearson Education Limited.                                                                                                                                                                                                                                                                                                                                                     |                                         |                                                           |
| References: (Name , Author , Year . Publisher)                                                                                                                                                                                                                                                                                                                                                                                                                             |                                         | عنوان المرجع : ( الاسم ، المؤلف ، سنة الطبع ، دار النشر ) |
| Current Protocols Essential Laboratory Techniques (2008). Ed. Sean Gallagher and Emily Wiley. John Wiley and Sons.                                                                                                                                                                                                                                                                                                                                                         |                                         |                                                           |

| Prerequisites 0490-103 & 0480-102 |                       |    | متطلبات المقرر |  |                        |
|-----------------------------------|-----------------------|----|----------------|--|------------------------|
| Grading                           | Exams                 | 20 | %              |  | الاختبارات             |
|                                   | Quizzes               | 10 | %              |  | امتحانات قصيرة         |
|                                   | H.W.                  | 10 | %              |  | واجبات                 |
|                                   | Project (field study) | 30 | %              |  | مشاريع (دراسة ميدانية) |
|                                   | Final                 | 30 | %              |  | الاختبار النهائي       |
|                                   |                       |    | %              |  |                        |

| أهداف مخرجات المقرر : |                       |  |                                    |                                                                                                   |       |
|-----------------------|-----------------------|--|------------------------------------|---------------------------------------------------------------------------------------------------|-------|
| الرقم                 | أهداف مخرجات المقرر : |  | أمثله من المقرر لتحقيق هذه الأهداف | المستوى المطلوب من عضو هيئة التدريس لتحقيق الهدف :                                                |       |
|                       |                       |  |                                    | متوسط                                                                                             | منخفض |
| 1                     |                       |  |                                    |                                                                                                   |       |
| 2                     |                       |  |                                    |                                                                                                   |       |
| 3                     |                       |  |                                    |                                                                                                   |       |
| 4                     |                       |  |                                    |                                                                                                   |       |
| 5                     |                       |  |                                    |                                                                                                   |       |
|                       |                       |  |                                    | الحقول                                                                                            |       |
|                       |                       |  |                                    | المهارات                                                                                          |       |
|                       |                       |  |                                    | منسق المقرر ( اسم عضو هيئة التدريس المشرف على توصيف المقرر ، توقيعه ، الختم و الرتبة الأكاديمية ) |       |
|                       |                       |  |                                    | تاريخ إعداد النموذج                                                                               |       |

| Course objectives |                                                                     |                                                                                                                                                           |                                             |        |     |
|-------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------|-----|
| No.               | Course Objectives (Learning Outcomes)                               | Example(s) of relevant (Topics and activities)                                                                                                            | Recommended Level to satisfy the objectives |        |     |
|                   |                                                                     |                                                                                                                                                           | High                                        | Medium | Low |
| 1                 | Demonstrate an understanding of proper laboratory safety protocols. | Universal warning labels and pictograms; how to operate a fire extinguisher/eye washer/shower. Taking pictures that record or illustrate scientific data. | X                                           |        |     |



|                               |                                                                                                                                                       |                                                                                                                       |   |  |  |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---|--|--|
| 2                             | Establish practical skills in fundamental and contemporary laboratory techniques.                                                                     | Advance laboratory techniques in filtration and centrifugation.                                                       | X |  |  |
| 3                             | Recognize legislations and methods concerned with handling of living laboratory animals and preserving lifeless ones.                                 | Housing and handling of laboratory animals, preservation of invertebrate and invertebrate animals in formalin/alcohol | X |  |  |
| 4                             | Acquire skills related to quantitative data analysis.                                                                                                 | Analysis of quantitative data from in-situ and in-vitro studies using Statistical program MINITAB, SPSS, PRISM        | X |  |  |
| 5                             | Recognize the parts of a lab report and scientific communication.                                                                                     | Comprehensive lab report preparation.                                                                                 | X |  |  |
| Fields                        | Animal Biology                                                                                                                                        |                                                                                                                       |   |  |  |
| Skills                        | Laboratory skills in biology                                                                                                                          |                                                                                                                       |   |  |  |
| Coordinator (Name and Rank) : | Dr. Amani Al-Adsani, Assistant Professor                                                                                                              |                                                                                                                       |   |  |  |
| Signature and stamp :         | <br>Dr. Amani Mustafa Al-Adsani<br>Biological Sciences Department |                                                                                                                       |   |  |  |
| Date:                         | 20 \ Nov. \ 2025                                                                                                                                      |                                                                                                                       |   |  |  |