



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

| | | | | | | | | | |
|--|---|--|---------------------|--|---|--------------------------------|---|------------|---|
| Course Title | | Free Radicals and Antioxidant Systems | | | | | | | |
| Course Code | | TFZ524 | | Couse Level | | Second Cycle (Master's Degree) | | | |
| ECTS Credit | 4 | Workload | 94 (<i>Hours</i>) | Theory | 1 | Practice | 2 | Laboratory | 0 |
| Objectives of the Course | | Comprehends the origin and formation systems of free radicals, formation processes of antioxidant molecules. | | | | | | | |
| Course Content | | Free radicals, relations with other systems, antioxidant enzymes, enzymes formation processes, antioxidant balance | | | | | | | |
| Work Placement | | N/A | | | | | | | |
| Planned Learning Activities and Teaching Methods | | | | Explanation (Presentation), Individual Study | | | | | |
| Name of Lecturer(s) | | | | | | | | | |

Assessment Methods and Criteria

| Method | Quantity | Percentage (%) |
|---------------------|----------|----------------|
| Midterm Examination | 1 | 40 |
| Final Examination | 1 | 60 |

Recommended or Required Reading

| | |
|---|---------------------------|
| 1 | Guyton, Tibbi Fizyoloji |
| 2 | Vander, İnsan Fizyolojisi |

| Week | Weekly Detailed Course Contents | |
|------|---------------------------------|--|
| 1 | Theoretical | Free radicals |
| 2 | Theoretical | Origins of free radicals |
| 3 | Theoretical | Intrinsic sources of free radicals |
| 4 | Theoretical | Pathophysiological effects of free radicals |
| 5 | Theoretical | Antioxidants |
| 6 | Intermediate Exam | visa |
| 7 | Theoretical | Intrinsic antioxidants |
| 8 | Theoretical | extrinsic antioxidants |
| 9 | Theoretical | antioxidant enzymes 1 |
| 10 | Theoretical | antioxidant enzymes 2 |
| 11 | Theoretical | oxidant-antioxidant balance |
| 12 | Theoretical | oxidant-antioxidant balance 2 |
| 13 | Theoretical | degradation of oxidant-antioxidant balance |
| 14 | Theoretical | degradation of oxidant-antioxidant balance 2 |
| 15 | Theoretical | measurement of plasma and tissue levels of free radicals |
| 16 | Final Exam | final |

Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---------------------------------------|----------|-------------|----------|----------------|
| Lecture - Theory | 1 | 0 | 14 | 14 |
| Lecture - Practice | 1 | 14 | 14 | 28 |
| Assignment | 10 | 0 | 2 | 20 |
| Reading | 3 | 0 | 10 | 30 |
| Midterm Examination | 1 | 0 | 1 | 1 |
| Final Examination | 1 | 0 | 1 | 1 |
| Total Workload (Hours) | | | | 94 |
| [Total Workload (Hours) / 25*] = ECTS | | | | 4 |

*25 hour workload is accepted as 1 ECTS



Learning Outcomes

| | |
|---|--|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |

Programme Outcomes (*Physiology (Medical) Master*)

| | |
|---|--|
| 1 | To be able to acquire a background needed for basic physiological research and having the ability to use the teoritical and practical knowledge in the field |
| 2 | To be able to prepare the article in the science of physiology |
| 3 | To be able to present papers in the field of science of physiology |
| 4 | To have professional ethics and responsibility |
| 5 | To be able to reach a level to follow research in the field, to possess written and spoken communication skills and be able to join discussions |

Contribution of Learning Outcomes to Programme Outcomes 1:Very Low, 2:Low, 3:Medium, 4:High, 5:Very High

| | L1 | L2 | L3 | L4 | L5 |
|----|----|----|----|----|----|
| P1 | 4 | 5 | 3 | 4 | 5 |
| P2 | 3 | 4 | 4 | 5 | 5 |
| P3 | 4 | 5 | 3 | 4 | 4 |
| P4 | 5 | 4 | 5 | 5 | 5 |
| P5 | 4 | 5 | 4 | 5 | 4 |

