|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Course name** | | **Code** | **Semester** | **T+U** | **Credit** | **ACTS** |
| RecentDevelopments in SoilScience | | 5115267 | Güz | 3+0 | 3 | 6 |
| **Prerequirements** | |  | | | | |
| **Course Language** | | English | | | | |
| **Course type** | | Selective | | | | |
| **Course coordinater** | |  | | | | |
| **Instructor** | |  | | | | |
| **Course purpose** | | Recentresearches in soilscience, findingsandnewmethods form thepurpose of thiscourse | | | | |
| **Course content** | | Teachingrecentdevelopmentsandimprovements in soilscience. | | | | |
| **Learning outcomes of thecourse** | | **At theend of thiscoursestudents;**  1. Learnalternativesoilanalysesmethods  2. Learn how tocomparetheresults of newandtradionalanalysesmethods  3. Learnalternativemethodsandusethem in differentareas  4. How topeformSpektroradyometricanalyses  5. Learncharacterization of soilsalinityusing EM-38 method  6. Learnmultivariatestatisticalmethods | | | | |
| **Weeks** | **Subjects** | | | | | |
| 1 | Traditional soil analyses methods | | | | | |
| 2 | Alternativesoilanalysesmethods | | | | | |
| 3 | Theuse of spectroradiometricmethods in soilscience | | | | | |
| 4 | Advantages anddisadvantagesofspectroradiometricmethods | | | | | |
| 5 | Studies in soilscienceperformedusingvisibleandnearinfraredreflectancespectroscopy | | | | | |
| 6 | Multivariatestatisticalmethodsused in spectroradiometrictechniques | | | | | |
| 7 | Multivariatestatisticalmethodsused in spectroradiometrictechniques | | | | | |
| 8 | New aproaches in characterization of soilsalinity | | | | | |
| 9 | EM-38 equaipmentandsoilsalinitycharacterization | | | | | |
| 10 | EM-38 andcomparison of traditionalsoillaboratoryanalyses | | | | | |
| 11 | EM-38 andcomparisonswithspectroradiometricmethods | | | | | |
| 12 | EM-38 andspectroradiometers in mappingsoilparameters | | | | | |
| 13 | Calculation of theaccuracy of soilmapsproduced | | | | | |
| 14 | Calculation of theaccuracy of soilmapsproduced | | | | | |
| **General competency** | | | | | | |
| Learn how tocharacterizesoilpropertiesusingspectroradiometer  Abletomapsoilsalinityusing EM-38 method  Abletointerprettheresults of EM38 andSpectroradiometermethods | | | | | | |
|  | | | | | | |
| **References** | | | | | | |
| 1. Williams, P.,Norris, K.H. 1987. Near-InfraredTechnologyıntheagricultureandfoodIndustries.AmericanAssociations of CerealChemists. | | | | | | |
| **Evaluation system** | | | | | | |
| MidtermExam: 40%, Final: 60%; Project orhomeworkevaluations can be madebyannouncing at thebeginning of thesemester. | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **PROGRAM ÖĞRENME ÇIKTILARI İLE**  **DERS ÖĞRENİM KAZANIMLARI İLİŞKİSİ TABLOSU** | | | | | | | | | | | | | |
|  | **PÇ1** | **PÇ2** | | **PÇ3** | **PÇ4** | | **PÇ5** | **PÇ6** | | **PÇ7** | **PÇ8** | | **PÇ9** | **PÇ10** |
| **ÖK1** | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 4 |
| **ÖK2** | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 4 |
| **ÖK3** | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 4 |
| **ÖK4** | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 4 |
| **ÖK5** | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 4 |
| **ÖK6** | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 5 | | 5 | 4 |
| **ÖK: Öğrenme Kazanımları PÇ: Program Çıktıları** | | | | | | | | | | | | | | |
| **Katkı Düzeyi** | **1 Çok Düşük** | | **2 Düşük** | | | **3 Orta** | | | **4 Yüksek** | | | **5 Çok Yüksek** | | |

**Program Çıktıları ve İlgili Dersin İlişkisi**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Ders** | **PÇ1** | **PÇ2** | **PÇ3** | **PÇ4** | **PÇ5** | **PÇ6** | **PÇ7** | **PÇ8** | **PÇ9** | **PÇ10** |
| RecentDevelopments in SoilScience | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |