|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Details zum Modul | | | | | | | | | | | | | | | | | | | | | | | | |
| Code | | | | | | | | | | | | | | **Studienjahr** | | | | | | | **Studiensemester** | | | |
| BA017 | | | | | | | | | | | | | |  | | | | | | | Wahlfach | | | |
| Bezeichnung | | | | | | | | | | | | | | **VL** | | **UE** | | | **LU** | | **ECTS** | | | |
| Zeitreihenanalyse | | | | | | | | | | | | | | 3 | | 0 | | | 0 | | 7.5 | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Sprache | | | | Englisch | | | | | | | | | | | | | | | | | | | | |
| Studium | | | | **Bachelor** | | |  | | | | **Master** | |  | | | | | **Doktor** | | | | | **X** | |
| Studiengang | | | | PhD in Betriebswirtschaftslehre | | | | | | | | | | | | | | | | | | | | |
| Lehr- und Lernformen | | | | Präsenzvorlesung | | | | | | | | | | | | | | | | | | | | |
| Modultyp | | | | **Pflichtfach** | | | | |  | | | | **Wahlfach** | | | | | | | **X** | | | | |
| Lernziele | | | | Ziel dieses Kurses ist es, dass die Studierenden die Methoden der Zeitreihenanalyse erlernen und anwenden. | | | | | | | | | | | | | | | | | | | | |
| Lerninhalte | | | | Der Inhalt dieses Kurses umfasst allgemeine Informationen über Zeitreihen, die Zerlegung von Zeitreihen in ihre Komponenten, die Glättungsmethoden, die autoregressive Modelle, die gleitenden Durchschnittsmodelle, die autoregressiven gleitenden Durchschnittsmodelle, die Modelle für bedingte Heteroskedastizität, die ARIMA-Modelle mit exogenen Variablen, die Granger-Kausalitätsanalyse, die vektorautoregressiven Modelle, die Kointegrationsanalyse und die Paneldatenanalyse. | | | | | | | | | | | | | | | | | | | | |
| Methoden und Verfahren | | | | Formale Erklärung vom Vortragenden und Analyse | | | | | | | | | | | | | | | | | | | | |
| Teilnahmevoraussetzungen | | | | Keine | | | | | | | | | | | | | | | | | | | | |
| Koordination | | | | Assoc. Prof. Dr. Mehmet Hakan ÖZDEMİR (stellvertretend) | | | | | | | | | | | | | | | | | | | | |
| Vortrgende(r) | | | | Assoc. Prof. Dr. Mehmet Hakan ÖZDEMİR (stellvertretend) | | | | | | | | | | | | | | | | | | | | |
| Mitwirkende(r) | | | |  | | | | | | | | | | | | | | | | | | | | |
| Praktikumsstatus | | | | Keine | | | | | | | | | | | | | | | | | | | | |
| Fachliteratur | | | | | | | | | | | | | | | | | | | | | | | | |
| Bücher / Skripte | | | | Orhunbilge, N., Zaman Serileri Analizi Tahmin ve Fiyat İndeksleri, İstanbul Üniversitesi Yayınları, 1999.  Sevüktekin, M., Çınar, M., Ekonometrik Zaman Serileri Analizi EViews Uygulamalı, Dora Yayıncılık, 2014.  Akgül, I., Zaman Serilerinin Analizi ve ARIMA modelleri, Der Yayınları, 2011.  Hyndman, R. J., Athanasopoulos, G., Forecasting: principles and practice. OTexts, 2018. | | | | | | | | | | | | | | | | | | | | |
| Weitere Quellen | | | |  | | | | | | | | | | | | | | | | | | | | |
| Lernmaterialien | | | | | | | | | | | | | | | | | | | | | | | | |
| Dokumente | | | |  | | | | | | | | | | | | | | | | | | | | |
| Hausaufgaben | | | |  | | | | | | | | | | | | | | | | | | | | |
| Prüfungen | | | |  | | | | | | | | | | | | | | | | | | | | |
| Zusammensetzung des Moduls | | | | | | | | | | | | | | | | | | | | | | | | |
| Mathematik und Grundlagenwissenschaften | | | |  | | | | | | | | | | | | | 10% | | | | | | | |
| Ingenieurwesen | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Konstruktionsdesign | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Sozialwissenschaften | | | |  | | | | | | | | | | | | | 30% | | | | | | | |
| Erziehungswissenschaften | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Naturwissenschaften | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Gesundheitswissenschaften | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Fachkenntnis | | | |  | | | | | | | | | | | | | 60% | | | | | | | |
| Bewertungssystem | | | | | | | | | | | | | | | | | | | | | | | | |
| Aktivität | | | | **Anzahl** | | | | | | | | | | | | | **Gewichtung in Endnote (%)** | | | | | | | |
| Zwischenprüfungen | | | | 1 | | | | | | | | | | | | | %40 | | | | | | | |
| Quiz | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Hausaufgaben | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Anwesenheit | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Übung | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Projekte | | | |  | | | | | | | | | | | | | % | | | | | | | |
| Abschlussprüfung | | | | 1 | | | | | | | | | | | | | %60 | | | | | | | |
| Summe | | | | | | | | | | | | | | | | | **100** | | | | | | | |
| ECTS Leistungspunkte und Arbeitsaufwand | | | | | | | | | | | | | | | | | | | | | | | | |
| Aktivität | | | | **Anzahl** | | | | | | **Dauer** | | | | | | | **Gesamtaufwand (Stunden)** | | | | | | | |
| Vorlesungszeit | | | | 14 | | | | | | 3 | | | | | | | 42 | | | | | | | |
| Selbsstudium | | | | 14 | | | | | | 13 | | | | | | | 182 | | | | | | | |
| Hausaufgaben | | | |  | | | | | |  | | | | | | |  | | | | | | | |
| Präsentation / Seminarvorbereitung | | | |  | | | | | |  | | | | | | |  | | | | | | | |
| Zwischenprüfungen | | | | 1 | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Übung | | | |  | | | | | |  | | | | | | |  | | | | | | | |
| Labor | | | |  | | | | | |  | | | | | | |  | | | | | | | |
| Projekte | | | |  | | | | | |  | | | | | | |  | | | | | | | |
| Abschlussprüfung | | | | 1 | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Summe Arbeitsaufwand | | | | | | | | | | | | | | | | | **226** | | | | | | | |
| ECTS Punkte (Gesamtaufwand / Stunden) | | | | | | | | | | | | | | | | | **7.5** | | | | | | | |
| Lernergebnisse | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | In der Lage zu sein, das Funktionsprinzip der in der Zeitreihenanalyse verwendeten Methoden zu verstehen | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | In der Lage zu sein, die Methoden der Zeitreihenanalyse anzuwenden | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | In der Lage zu sein, eine Grundlage zum Verständnis der in aktuellen Artikeln verwendeten Methoden zu schaffen | | | | | | | | | | | | | | | | | | | | | | |
| Wöchentliche Themenverteilung | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | Allgemeine Informationen zu Zeitreihen | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | Zerlegung von Zeitreihen in Komponenten | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | Glättungsmethoden | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | Autoregressive Modelle | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | Gleitende Durchschnittsmodelle | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | Autoregressive gleitende Durchschnittsmodelle | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | Modelle für bedingte Heteroskedastizität | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | Zwischenprüfung, Modelle für bedingte Heteroskedastizität | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | ARIMA-Modelle mit exogenen Variablen | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | Granger-Kausalitätsanalyse | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | Vektorautoregressive Modelle | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | Kointegrationsanalyse | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | Paneldatenanalyse | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | Paneldatenanalyse | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | Abschlussprüfung | | | | | | | | | | | | | | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | | | | | | | | |
| Beitrag der Lernergebnisse zu den Lernzielen des Programms (1-5) | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **P1** | | **P2** | **P3** | | **P4** | | **P5** | | | **P6** | **P7** | | | **P8** | | | **P9** | | | | **P10** | | **P11** |
| 1 | 5 | | 4 | 5 | | 5 | | 5 | | | 4 |  | | | 4 | | |  | | | | 5 | |  |
| 2 | 5 | | 4 | 5 | | 5 | | 5 | | | 4 |  | | | 4 | | |  | | | | 5 | |  |
| 3 | 5 | | 4 | 5 | | 5 | | 5 | | | 4 |  | | | 4 | | |  | | | | 5 | |  |
| Beitragsgrad: 1: Sehr Niedrig 2: Niedrig 3: Mittel 4: Hoch 5: Sehr Hoch | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | |
| Erstellt von: | | | | | Assoc. Prof. Dr. Mehmet Hakan Özdemir (Leiter des Fachbereichs Numerische Methoden) | | | | | | | | | | | | | | | | | | | |
| Datum der Aktualisierung: | | | | | 13.05.2024 | | | | | | | | | | | | | | | | | | | |