Choose computational models for real structures.					Hor	ne Page - Salahadin		
Responsible:  Asst. Prof. Dr Feirusha + M. Abdullah  Lecture (s):  College:  Course outcomes:  Students should be able to: Use reference, technical literature, and standards to analyze the different types of the structure using N Choose computational models for real structures. Solve problems in the discipline manually and by using different commercial software programs such methods of analysis.  be ready to the next steps (Design of Buildings and Structures).  Course Content:  Course Content:  Considering the curriculum of the Matrix Analysis of Structures, here is the content of this discipline: Introduction + Matrix algebra Truss Analysis Using the Stiffness Method Beam Analysis Using the Stiffness Method Plane Frame Analysis Using the Stiffness Method Structural Modeling and Computer Analysis Basic Matrix Operations in Matlab Introduction to the finite element method 2D Truss example by Abacus 2D Beam example by Abacus (Linear)  Literature:  **Rey references:** Structural Analysis R. C. Hibbeler. Structural Analysis Atthew L. Camilleri Matrix Analysis of Structures Aslam Kassimali.  **Useful references:** Fundamentals of Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis, is the secssary to pass the module exam. Type of Teaching:  **Pre-requilites:** Frequency:  **Pre-requilites:*	Examina	Exam	nination No.: 1138			Version:1/9/2022		Start: 1/9/2022
Responsible:  Lecture (s):  College:  College of Engineering – Salahaddin University  Duration:  Students should be able to:  Use reference, technical literature, and standards to analyze the different types of the structure using N Choose computational models for real structures.  Solve problems in the discipline manually and by using different commercial software programs such methods of analysis.  be ready to the next steps (Design of Buildings and Structures).  Course Content:  Considering the curriculum of the Matrix Analysis of Structures, here is the content of this discipline: Introduction + Matrix algebra  Truss Analysis Using the Stiffness Method  Beam Analysis Using the Stiffness Method  Plane Frame Analysis Using the Stiffness Method  Structural Modeling and Computer Analysis  Basic Matrix Operations in Matlab  Introduction to the finite element method  2D Truss example by Abacus  2D Beam example by Abacus (Linear)  Literature:  * Key references:  Structural Analysis R. C. Hibbeler.  Structural Analysis R. C. Hibbeler.  Structural Analysis, Matthew L. Camilleri  Matrix Analysis of Structures Aslam Kassimali.  * Useful references:  Fundamentals of Structural Analysis, with computer Analysis and Applications, Sujit Kumar.  Computational Structural Analysis and Finite Element Methods- Kaveh A.  Type of Teaching:  Pre-requilities:  Frequency:  Pre-requilities:  Frequency:  For the award of credit points, it is necessary to pass the module exam.  The module exam contains:  (Written 120 min)  Structural Computations:  Coredit point:  The Grade Distribution:  The Grade Distribution:  The Grade is generated from the examination result(s) with the following				<u></u>	<u> </u> Mat	rix Analysis of Structu	ıres	
College: College: College: Course outcomes: Course outcomes: Course outcomes:  Students should be able to: Use reference, technical literature, and standards to analyze the different types of the structure using N Choose computational models for real structures. Solve problems in the discipline manually and by using different commercial software programs such methods of analysis. be ready to the next steps (Design of Buildings and Structures). Considering the curriculum of the Matrix Analysis of Structures, here is the content of this discipline: Introduction + Matrix algebra Truss Analysis Using the Stiffness Method Beam Analysis Using the Stiffness Method Plane Frame Analysis Using the Stiffness Method Structural Modeling and Computer Analysis Basic Matrix Operations in Matlab Introduction to the finite element method 2D Truss example by Abacus 2D Beam example by Abacus 2D Beam example by Abacus Structural Analysis R. C. Hibbeler. Structural Analysis R. C. Chilbbeler. Structural Analysis Aslam Kassimali. Advanced Methods of Structural Analysis, Igor A. Karnovsky, Olga Lebed Structural Analysis, Matthew L. Camilleri Matrix Analysis of Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis and Finite Element Methods- Kaweh A.  Type of Teaching: Pre-requisites: Frequency: For the award of credit points, it is necessary to pass the module exam. The module exam contains:   Worth and Description of the Administration results with the following 20% activity								
College: Duration: Course outcomes: Students should be able to: Use reference, technical literature, and standards to analyze the different types of the structure using N Choose computational models for real structures. Solve problems in the discipline manually and by using different commercial software programs such methods of analysis. be ready to the next steps (Design of Buildings and Structures).  Course Content: Course C								
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Course Content:  Considering the curriculum of the Matrix Analysis of Structures, here is the content of this discipline: Introduction + Matrix algebra Truss Analysis Using the Stiffness Method Beam Analysis Using the Stiffness Method Plane Frame Analysis Using the Stiffness Method Structural Modeling and Computer Analysis Basic Matrix Operations in Matlab Introduction to the finite element method 2D Truss example by Abacus 2D Beam example by Abacus (Linear )  Literature:  * Key references: Structural Analysis Aslam Kassimali. Advanced Methods of Structural Analysis, Igor A. Karnovsky, Olga Lebed Structural Analysis, Matthew L. Camilleri Matrix Analysis of Structures Aslam Kassimali.  * Useful references: Fundamentals of Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis and Finite Element Methods- Kaveh A.  Type of Teaching:  2 hrs Application Pre-requisites: Frequency:  Requirements for credit points:  For the award of credit points, it is necessary to pass the module exam. The module exam contains: [Written 120 min] Student's attendance is required in all classes.  Credit point:  Grade Distribution:  The Grade is generated from the examination result(s) with the following								
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Matrix Analysis of Structures Aslam Kassimali.  Useful references: Fundamentals of Structural Analysis, with computer Analysis and Applications, Sujit Kumar. Computational Structural Analysis and Finite Element Methods- Kaveh A.  Type of Teaching:  2 hrs in lectures 2 hrs Application Pre-requisites: Structural Analysis Frequency: Yearly in fall semester  Requirements for credit points: For the award of credit points, it is necessary to pass the module exam. The module exam contains: [Written 120 min] Student's attendance is required in all classes.  Credit point:  Grade Distribution: The Grade is generated from the examination result(s) with the following 20% activity	tructural Analysi tructural Analysi dvanced Method	Structural Analy Structural Analy Advanced Meth	ysis R. C. Hibbele ysis Aslam Kassir hods of Structura	mali. al Analysis, I	lgor A. Karnov	sky, Olga Lebed		
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Grade Distribution:  The Grade is generated from the examination result(s) with the following  20% activity						5		
20% activity		<del>                                     </del>		The Gra	ade is generated t		ult(s) with the follow	ing
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60% final theoretical Exam					6		1	
Work load: The workload is 150h. It is the result of 60h attendance and 90h self studies.		<del>                                     </del>		The work				dies

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