



Conceptual Helicopter Design and Maintainability (19-23 Nov 2026)

Jointly Organised by the Vertical Flight Society UAE Chapter and American University in Dubai (AUD), the Course presents an insight of 'Conceptual Design of Rotorcraft'. Delivered in an intensive and interactive mode, the course adopts a 'Design Project Team' based learning and application experience. The course entails student interactions during the lectures for progressive learning.

The course covers 'Helicopter Operations' (Role and Missions – Military & Civil) 'Mission Profile', 'Mission Systems', 'Design Requirements' from the 'Request-of-Proposal (RFP)', to 'Design Analysis' for the optimum selection of 'Platform Configuration' to 'Technologies' and 'Mission Payload'. The course encompasses the salient features of 'Design for Maintainability'. 'Conceptual Design Development' of the Helicopter follows as a Design Team - one that meets the prescribed 'Role Mission, Flight Performance and Maintainability Requirements' as defined in the RFP.

The Course is for Undergrad/Post grad Students and Young Engineers. It will be delivered in AUD Campus, Dubai.

Supported by Regional Education Members



Arvind Sinha, Lecturer - Design

Over 50 yrs of service covering government bodies, industry, and academia. Positions range from Manager Aerospace Design Office, Director Aerospace and Aviation Research Centre, Dean Faculty of Aviation and Director of Engineering for Defence Aviation Systems. Two Undergraduate Degrees (Science & Engg), Three Postgraduate (Electronics, Aerospace & Business) and PhD in Aerospace Design. Bestowed with Professoriates, Technical and Honorary Fellowships, Awards, from Defence operational medals and World's highest award for Vertical Lift Aeronautics "Dr Alexander Klemin Award". Served specialist defence organisations from Electronics to Airborne.



Bharat Sharma, Lecturer – Maintainability

Five decades of service with government bodies, industry, and academia. Positions range from Managing Director Operations & Maintenance Service, Director Dean & Advisor Renewable Energy Engineering & Development, Head Renewable Energy Training Academy, Dean Faculty of Aviation and Director Engineering Defence Aviation Systems & Training. Two Undergraduate Degrees (Science & Engg), Three Postgraduate (Industrial Tribology, Maintenance Engineering, Aerospace and Management). PhD in Tribological Impacts on Aerospace Design. Visiting Professor at Universities Overseas. Conducted Seminars & Training Sessions on Deployment of Rotary Wing Assets in a Disaster Management Scenario.



Benjamin Fleming- Tutor

Attained a Bachelor of Science and Master of Engineering (Mechanical with Aerospace) from the University of Melbourne with 1st Class Honours. He led a student team to 2nd place in an international helicopter design competition. He now works as an engineer in the Australian Defence industry.

Date	Schedule	Coverage
Thursday 19 Nov 26	0900-1030	Introduction and Accident Analysis (Operational and Design)
	1030-1045	Refreshments Break
	1045-1215	Operations, Environment and Requirements & RFP Analysis
	1215-1330	Lunch Break
	1330-1630	Design Project 1 – Design Requirements Development
Friday 20 Nov 26	0900-1030	Mission Systems – Payload Analysis and Design
	1030-1045	Refreshments Break
	1045-1215	Aerodynamics & flight performance Project 1 Presentation
	1215-1330	Lunch Break
	1330-1630	Design Project 2 – Mission Payload Development
Monday 23 Nov 26	0900-1030	Design Analysis and Process – Size, Shape, Weight and Power
	1030-1045	Refreshments Break
	1045-1215	Design for Maintainability Project 2 Presentation
	1215-1330	Lunch Break
	1330-1630	Design Project 3 – Platform Size, Shape, Weight and Power
	1630-1730	Project 3 Presentation
	1730-1800	Certificate-of-Completion and Closing Address

Contact for Registration – Email to:

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- David Holmes: David.Holmes3@geaerospace.com



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Supporting Regional Chapters – Vertical Flight Society
(Australia, India, and Thailand)

