

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure

(Common for all branches)

First Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DAP 1001	Basic Physics	3	0	0	3
DAC 1001	Basic Chemistry	3	1	0	4
DAM 1101	Basic Mathematics	3	1	0	4
DHE 1001	Technical English	3	0	0	3
DCS 1001	Fundamentals of Computer	3	0	0	3
DMM 1002	Engineering Graphics-I	0	1	2	2
DAP 1002	Basic Physics Lab.	0	0	2	1
DAC 1002	Basic Chemistry Lab.	0	0	2	1
DCS 1002	Computer Lab.	0	0	2	1
DME 1004	Workshop Practice-I	0	0	2	1
DGA1002/04/06/08	PT and Games/NSS/NCC/CA	0	0	2	1
	Periods per week	15	3	12	-
	Total credits	-	-	-	24
	Total Periods per week	-	-	-	30

Second Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DHE 2001	Communication Skill	2	1	0	3
DAM 2101	Engineering Mathematics	3	1	0	4
DAC 2001	Engineering Chemistry	3	0	0	3
DAP 2001	Engineering Physics	3	0	0	3
DEC 2101	Fundamentals of Electrical and Electronics	3	0	0	3
DAS 2102	Applied Science Lab.	0	0	2	1
DEC 2002	Electrical and Electronics Lab.	0	0	2	1
DMM 2002	Engineering Graphics-II	0	1	2	2
DHU 2002	Development of Life Skills-I	0	0	2	1
DHU 2004	Professional Practices-I	0	0	2	1
DME 2004	Workshop Practice-II	0	0	2	1
DGA 2002/04/06/08	PT and Games/NSS/NCC/CA	0	0	2	1
	Periods per week	14	3	14	-
	Total credits	-	-	-	24
	Total Periods per week	-	-	-	31

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure Automobile Engineering

Third Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMA 3201	Applied Mathematics	3	0	0	3
DMM 3101	Thermal Engineering	3	1	0	4
DME 3007	Manufacturing Process	3	0	0	3
DMM 3003	Applied Mechanics	3	1	0	4
DMM 3005	Mechanical Engineering Materials	3	0	0	3
DMM 3006	Machine Drawing	0	1	2	2
DME 3106	Manufacturing Process Lab.	0	0	2	1
DMM 3102	Thermal Engineering Lab.	0	0	2	1
DMM 3004	Applied Mechanics Lab.	0	0	2	1
DHU 3002	Professional Practices-II	0	0	2	1
DGA 3002/04/06/08	PT and Games/NSS/NCC/CA	0	0	3	1
	Periods per week	15	3	13	-
	Total credits	-	-	-	24
	Total periods per week	-	-	-	31

Fourth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMM 4007	Strength of Materials	3	1	0	4
DMM 4103	Fluid Mechanics and Machines	3	1	0	4
DAE 4011	Automotive Engine	3	1	0	4
DAE 4113	Autotronics	3	1	0	4
DCS 4011	Computer Programming	3	0	0	3
DAC 4001	Environmental Science	2	0	0	2
DMM 4008	Strength of Materials Lab.	0	0	2	1
DAE 4012	Automotive Engine Lab.	0	0	2	1
DHU 4002	Professional Practices-III	0	0	2	1
DEA 4014	Autotronics Lab.	0	0	2	1
DCS 4012	Computer Programming Lab.	0	0	2	1
	Periods per week	17	4	10	-
	Total credits	-	-	-	26
	Total periods per week	-	-	-	31

**UNIVERSITY POLYTECHNIC
BIT MESRA, RANCHI**

**Course Structure
Diploma in Automobile Engineering
Fifth Semester**

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMM 5013	Theory of Machine	3	1	0	3
DME 5013	Quality Control	3	0	0	3
DAE 5011	Automotive Equipment and Maintenance	3	1	0	3
DAE 5015	Automotive Design	3	1	0	3
DAE 5017	Motor Vehicle Technology	3	0	0	3
DAE 5010	Driving Practice	0	0	3	2
DMM 5014	Theory of Machine Lab.	0	0	3	1
DAE 5016	Automotive Repair and Maintenance Lab.-I	0	0	3	1
DAE 5012	Project-I	0	0	6	3
	Periods per week	15	3	15	-
	Total credits	-	-	-	22
	Total periods per week	-	-	-	33

Sixth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DME 6011	Industrial Engineering	3	0	0	3
DAE 6009	Automotive Emission and Control System	3	0	0	3
DAE 6115	Special Purpose Vehicles and Equipment	3	0	0	3
DME 6003	Mechatronics	3	0	0	3
DMM 6013	CAD/CAM	3	0	0	3
	Elective	3	0	0	3
DAE 6008	Automotive Repair and Maintenance Lab.-II	0	1	2	2
DMM 6014	CAD Lab.	0	1	2	2
DAE 6012	Project-II	0	0	6	3
ELECTIVE(Any one)					
DME 6107	Operation Research	3	0	0	3
DME 6001	Numerical Technique	3	0	0	3
DMM 6015	Heating Ventilation and Air Conditioning	3	0	0	3
	Periods per week	18	2	10	-
	Total credits	-	-	-	25
	Total periods per week	-	-	-	30

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure Diploma in Mechanical (Production) Engineering Third Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMA 3201	Applied Mathematics	3	0	0	3
DMM 3101	Thermal Engineering	3	1	0	4
DME 3105	Manufacturing Process-I	3	0	0	3
DMM 3005	Mechanical Engineering Materials	3	0	0	3
DMM 3003	Applied Mechanics	3	1	0	4
DMM 3006	Machine Drawing	0	1	2	2
DME 3106	Manufacturing Process Lab.-I	0	0	2	1
DMM 3004	Applied Mechanics Lab.	0	0	2	1
DMM 3102	Thermal Engineering Lab.	0	0	2	1
DHU 3002	Professional Practicess-II	0	0	2	1
DGA 3002/04/06/08	PT and Games/NSS/NCC/CA	0	0	2	1
	Periods per week	15	3	12	-
	Total credits	-	-	-	24
	Total Periods per week	-	-	-	30

Fourth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMM 4007	Strength of Materials	3	1	0	4
DME 4105	Theory of Machine	3	0	0	3
DME 4007	Manufacturing Process-II	3	0	0	3
DMM 4103	Fluid Mechanics and Machines	3	0	0	3
DAC 4001	Environmental Science	2	0	0	2
DCS 4011	Computer Programming	3	0	0	3
DMM 4008	Strength of Materials Lab.	0	1	2	2
DME 4102	Manufacturing Process Lab.-II	0	0	2	1
DMM 4104	Fluid Mechanics and Machinery Lab.	0	0	2	1
DCS 4012	Computer Programming Lab.	0	1	2	2
DHU 4002	Professional Practicess-III	0	0	2	1
	Periods per week	17	3	10	-
	Total credits	-	-	-	25
	Total Periods per week	-	-	-	30

**UNIVERSITY POLYTECHNIC
BIT MESRA, RANCHI**

**Course Structure
Diploma in Manufacturing Engineering
Fifth Semester**

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DME 5011	Tool and Die Design	3	0	0	3
DME 5103	Measurement and Metrology	3	1	0	4
DME 5013	Quality Control	3	1	0	4
DMM 5103	CAD/CAM	3	1	0	4
DME 5015	Manufacturing Process-III	3	0	0	3
DMM 5104	CAD Lab.	0	0	2	1
DME 5104	Measurement and Metrology Lab.	0	0	2	1
DME 5012	Tool and Die Design Lab.	0	0	2	1
DME 5014	Project-I	0	0	4	2
	Periods per week	15	3	10	-
	Total credits	-	-	-	23
	Total Periods per week	-	-	-	28

Sixth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DME 6021	Maintenance Engineering	3	0	0	3
DME 6009	Machine Tool Design	3	1	0	4
DME 6011	Industrial Engineering	3	0	0	3
	Elective	4	0	0	4
DME 6013	Advanced Manufacturing Process	3	1	0	4
DME 6004	CAM Lab.	0	0	3	2
DME 6014	Advanced Manufacturing Process Lab.	0	0	3	2
DME 6012	Project-II	0	0	6	3
List of Elective(Any one)					
DME 6107	Operation Research	4	0	0	4
DME 6015	Mechatronics	4	0	0	4
DME 6017	Alternative Energy Resources	4	0	0	4
DME 6019	Ergonomics and Human Factor Engineering	4	0	0	4
	Periods per week	16	2	12	-
	Total credits	-	-	-	25
	Total Periods per week	-	-	-	31

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure Diploma in Mechanical Engineering

Third Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMA 3201	Applied Mathematics	3	0	0	3
DMM 3101	Thermal Engineering	3	1	0	4
DME 3007	Manufacturing Process	3	0	0	3
DMM 3003	Applied Mechanics	3	1	0	4
DMM 3005	Mechanical Engineering Materials	3	0	0	3
DMM 3006	Machine Drawing	0	1	2	2
DME 3106	Manufacturing Process Lab.	0	0	2	1
DMM 3102	Thermal Engineering Lab.	0	0	2	1
DMM 3004	Applied Mechanics Lab.	0	0	2	1
DHU 3002	Professional Practices-II	0	0	2	1
DGA 3002/04/06/08	PT and Games/NSS/NCC/CA	0	0	3	1
	Periods per week	15	3	13	-
	Total credits	-	-	-	24
	Total periods per week	-	-	-	31

Fourth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMM 4007	Strength of Materials	3	1	0	4
DMM 4009	Engineering Measurement	3	0	0	3
DCS 4011	Computer Programming	3	0	0	3
DMM 4011	Heat and Power Engineering	3	0	0	3
DMM 4013	Fluid Mechanics	3	0	0	3
DAC 4001	Environmental Science	2	0	0	2
DMM 4008	Strength of Materials Lab.	0	0	2	1
DMM 4010	Engineering Measurement Lab.	0	0	2	1
DCS 4012	Computer Programming Lab.	0	0	2	1
DMM 4104	Fluid Mechanics Lab.	0	0	2	1
DHU 4002	Professional Practices-III	0	0	2	1
	Periods per week	17	1	10	-
	Total credits	-	-	-	23
	Total periods per week	-	-	-	30

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure Diploma in Mechanical Engineering

Fifth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMM 5107	Heat Transfer	3	0	0	3
DMM 5103	CAD/CAM	3	0	0	3
DMM 5105	IC Engines and Gas Turbine	3	0	0	3
DMM 5011	Hydraulic Machine	3	0	0	3
DMM 5013	Theory of Machine	3	0	0	3
DAE 5019	Basics of Automobile Engineering	3	0	0	3
DMM 5108	Heat Transfer Lab.	0	0	2	1
DMM 5104	CAD Lab.	0	0	2	1
DMM 5106	IC Engine and Gas Turbine Lab.	0	0	2	1
DMM 5016	Hydraulic Machineries Lab.	0	0	2	1
DMM 5014	Theory of Machine Lab	0	0	2	1
DMM 5012	Project-I	0	0	4	2
	Periods per week	18	0	14	-
	Total credits	-	-	-	25
	Total periods per week	-	-	-	32

Sixth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMM 6101	Machine Design	3	1	0	4
DMM 6107	Refrigeration and Air-conditioning	3	1	0	4
DME 6107	Operation Research	3	1	0	4
DME 6011	Industrial Engineering	3	0	0	3
DME 6023	Quality Control	3	0	0	3
	Elective	3	0	0	3
DMM 6108	Refrigeration and Air-conditioning Lab.	0	0	2	1
DMM 6012	Project-II	0	0	6	3
ELECTIVE(Any one)					
DMM 6017	Energy Resources and Utilization	3	0	0	3
DMA 6001	Numerical Technique	3	0	0	3
DMM 6110	Non-Conventional Energy Resource	3	0	0	3
	Periods per week	18	3	8	-
	Total credits	-	-	-	25
	Total periods per week	-	-	-	29

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure Diploma in Computer Engineering

Third Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMA 3201	Applied Mathematics	3	0	0	3
DCS 3001	C Programming	3	1	0	4
DCS 3003	DBMS	3	0	0	3
DCS 3005	Computer Organization	3	0	0	3
DCS 3007	Web Technology	3	0	0	3
DCS 3002	C Programming Lab.	0	1	2	2
DCS 3004	DBMS Lab.	0	0	2	1
DCS 3006	Computer Organization Lab.	0	0	2	1
DCS 3008	Web Design Lab.	0	0	2	1
DHU 3002	Professional Practices-II	0	0	2	1
DGA 3002/04/06/08	PT and Games/NSS/NCC/CA	0	0	2	1
	Periods per week	15	2	12	-
	Total credits	-	-	-	23
	Total Periods per week	-	-	-	35

Fourth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DCS 4001	OOP in C++	3	0	0	3
DCS 4005	Data Structures	3	1	0	4
DCS 4007	.NET	3	0	0	3
DCS 4009	Operating System	3	0	0	3
DAC 4001	Environmental Science	2	0	0	2
DCS 4002	C++ Lab.	0	1	2	2
DCS 4004	Oracle Lab.	0	1	2	2
DCS 4006	Data Structures Lab.	0	1	2	2
DCS 4008	.NET Lab.	0	0	2	1
DCS 4010	Linux Lab.	0	0	2	1
DHU 4002	Professional Practices-III	0	0	2	1
	Periods per week	14	4	12	-
	Total credits	-	-	-	24
	Total Periods per week	-	-	-	30

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure Diploma in Computer Engineering

Fifth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DCS 5001	Introduction to Java Programming	3	1	0	4
DCS 5003	Data Communication and Networking	3	1	0	4
DCS 5005	Computer System Architecture	3	1	0	4
DCS 5007	Multimedia and Animation	3	0	0	3
DCS 5009	Software Engineering	3	0	0	3
DCS 5002	Java Programming Lab. – I	0	0	2	1
DCS 5004	Computer Networking Lab.	0	0	2	1
DCS 5008	Multimedia Lab.	0	0	2	1
DCS 5010	Visual Basic Lab.	0	0	4	2
DCS 5012	Project-I	0	0	6	3
	Periods per week	15	3	16	-
	Total credits	-	-	-	26
	Total Periods per week	-	-	-	34

Sixth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMT 6001	Total Quality Management	3	0	0	3
DCS 6001	Advance Java Programming	3	1	0	4
DCS 6003	Computer Hardware	3	1	0	4
DCS 6005	Cyber Security	3	0	0	3
	Elective	3	0	0	3
DCS 6002	Java Programming Lab. – II	0	0	2	1
DCS 6004	Computer Hardware Lab.	0	0	2	1
DCS 6008	Software Testing Lab.	0	1	3	2
DCS 6010	Project-II	0	0	6	3
List of Elective(Any one)					
DCS 6011	Computer Graphics	3	0	0	3
DCS 6013	Image Processing	3	0	0	3
DCS 6015	Network Administration and Management	3	0	0	3
DCS 6017	Internet of Things	3	0	0	3
DCS 6019	Android Based Application Development	3	0	0	3
DCS 6023	Mobile Computing	3	0	0	3
	Periods per week	15	3	13	-
	Total credits	-	-	-	24
	Total Periods per week	-	-	-	31

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure Diploma in Electrical & Electronics Engineering Third Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMA 3201	Applied Mathematics	3	1	0	3
DEE 3005	Analog Electronics	3	1	0	4
DCS 3001	C Programming	3	1	0	4
DEE 3003	Transformer & DC Machine	3	0	0	3
DEC 3003	Digital Electronics	3	0	0	3
DCS 3002	C Programming Lab.	0	0	2	1
DEE 3006	Analog Electronics Lab.	0	0	2	1
DEE 3004	Transformer & DC Machine Lab	0	0	2	1
DEC 3004	Digital Electronics Lab.	0	0	2	1
DHU 3002	Professional Practices-II	0	0	2	1
DGA3002/04/06/08	PT and Games/NSS/NCC/CA	0	0	2	1
	Periods per week	15	3	12	-
	Total credits	-	-	-	23
	Total Periods per week	-	-	-	35

Fourth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DEE 4103	Electrical Power Generation	3	0	0	3
DEE 4019	Applied Communication	3	0	0	3
DEE 4011	Electrical & Electronics Measurement	3	1	0	4
DEE 4013	AC Dynamic Machine	3	0	0	3
DEC 4017	Microprocessor	3	1	0	4
DAC 4001	Environmental Science	2	0	0	2
DEE 4020	Applied Communication Lab.	0	0	2	1
DEE 4012	Electrical & Electronics Measurement Lab.	0	0	2	1
DEE 4014	AC Dynamic Machine Lab.	0	0	2	1
DEE 4016	Electrical Drawing(CAD) Lab.	0	0	2	1
DEC 4018	Microprocessor Lab	0	0	2	1
DHU 4002	Professional Practices-III	0	0	2	1
	Periods per week	17	2	12	-
	Total credits	-	-	-	25
	Total Periods per week	-	-	-	31

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure Diploma in Electrical & Electronics Engineering Fifth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DEE 5105	Utilization of Electrical energy	3	0	0	3
DEC 5015	Control Systems	3	1	0	4
DEE 5103	Power System	3	0	0	3
DEE 5009	Power Converter	3	0	0	3
DEC 5011	Embedded System	3	1	0	4
DEC 5018	Control Systems Lab.	0	0	2	1
DEE 5104	Power System Lab.	0	0	2	1
DEE 5010	Power Converter Lab.	0	0	2	1
DEC 5014	Embedded System Lab.	0	0	2	1
DEE 5012	Project-I	0	0	4	2
	Periods per week	15	2	12	-
	Total credits	-	-	-	23
	Total Periods per week	-	-	-	29

Sixth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMT 6001	Total Quality Management	3	0	0	3
DCS 6017	Internet of Things	3	0	0	3
DCS 6003	Computer Hardware	3	1	0	4
DEE 6013	Switch Gear And Protection	3	0	0	3
DEE 6015	Programmable Controller(PLC)	3	1	0	4
	Elective	3	0	0	3
DCS 6004	Computer Hardware Lab.	0	0	2	1
DEE 6016	PLC Lab.	0	0	2	1
DEE 6110	Electrical Workshop	0	0	2	1
DEE 6014	Switch Gear And Protection Lab.	0	0	2	1
DEE 6012	Project-II	0	0	4	2
List of Elective(Any one)					
DEE 6015	Industrial Automation	3	0	0	3
DEE 6017	Non-conventional Energy Sources	3	0	0	3
DEE 6103	Electrical Installation and Maintenance	3	0	0	3
DEE 6019	Electric Traction	3	0	0	3
	Periods per week	18	2	12	-
	Total credits	-	-	-	26
	Total Periods per week	-	-	-	32

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Course Structure

Diploma in Electronics & Communication Engineering

Third Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMA 3201	Applied Mathematics	3	0	0	3
DEC 3101	Basic Electronics	3	1	0	4
DMM 3003	Applied Mechanics	3	0	0	3
DEC 3003	Digital Electronics	3	1	0	4
DCS 3001	C Programming	3	1	0	4
DEC 3102	Basic Electronics Lab.	0	1	2	2
DMM 3004	Applied Mechanics Lab.	0	0	2	1
DEC 3004	Digital Electronics Lab.	0	0	2	1
DCS 3002	C Programming Lab.	0	1	2	2
DHU 3002	Professional Practices-II	0	0	2	1
DGA3002/04/06/08	PT and Games/NSS/NCC/CA	0	0	2	1
	Periods per week	15	5	12	-
	Total credits	-	-	-	26
	Total Periods per week	-	-	-	32

Fourth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DEC 4011	Electronic Instruments and Measurement	3	0	0	3
DEC 4013	Analog Communication	3	1	0	4
DEC 4015	Linear Integrated Circuit	3	0	0	3
DEC 4017	Microprocessor and Its Applications	3	1	0	4
DAC 4001	Environmental Science	2	0	0	2
DEC 4012	Electronic Instruments & Measurement Lab.	0	0	2	1
DEC 4014	Analog Communication Lab.	0	0	2	1
DEC 4016	Linear Integrated Circuit Lab.	0	0	2	1
DEC 4018	Microprocessor Lab.	0	1	2	2
DCS 4012	Visual Basic Lab.	0	0	2	1
DHU 4002	Professional Practices-III	0	0	2	1
	Periods per week	14	3	12	-
	Total credits	-	-	-	23
	Total Periods per week	-	-	-	29

Course Structure

UNIVERSITY POLYTECHNIC BIT MESRA, RANCHI

Diploma in Electronics Engineering Fifth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DEC 5009	Digital Communication	3	1	0	4
DEC 5011	Embedded System	3	1	0	4
DEC 5013	Advance Communication Systems	3	0	0	3
DEC 5015	Control Systems	3	1	0	4
DEC 5010	Digital Communication Lab.	0	1	2	2
DEC 5014	Embedded System Lab.	0	0	2	1
DEC 5016	Advance Communication Systems Lab.	0	1	2	2
DEC 5018	Control Systems Lab.	0	0	2	1
DEC 5012	Project-I	0	0	4	2
	Periods per week	12	5	12	-
	Total credits	-	-	-	23
	Total Periods per week	-	-	-	29

Sixth Semester

Subject Code	Subject	Theory	Tutorial	Lab.	Credit
DMT 6001	Total Quality Management	3	0	0	3
DEC 6009	Industrial Instrumentation	3	0	0	3
DCS 6003	Computer Hardware	3	1	0	4
DCS 6007	Computer Networks and Security	3	0	0	3
	Elective-I	3	0	0	3
	Elective-II	3	0	0	3
DEE 6014	Industrial Instrumentation Lab.	0	0	2	1
DCS 6004	Computer Hardware Lab.	0	0	2	1
DCS 6008	Computer Networking Lab.	0	0	2	1
DEC 6012	Project-II	0	0	6	3
List of Elective-I(Any one)					
DEC 6011	Wireless and Mobile Communication	3	0	0	3
DEC 6013	Telematics	3	0	0	3
DME 6015	Mechatronics	3	0	0	3
DEC 6015	VLSI Design	3	0	0	3
List of Elective-II(Any one)					
DEC 6017	Medical Electronics	3	0	0	3
DEC 6103	Optical Fibre Communication	3	0	0	3
DCS 6017	Internet of Things	3	0	0	3
	Periods per week	18	1	12	-
	Total credits	-	-	-	25
	Total Periods per week	-	-	-	31